SUBJECT: URBAN AGENCIES:

INTERFACING PASSION, INFLAMMABLE BY FAIRNESS

(AN INTERVIEW WITH KNOWBOTIC RESEARCH AND ANDREAS BROECKMANN)

FROM: WILFRIED PRANTNER (BY WAY OF KR+CF@KHM.DE <KNOWBOTIC RESEARCH>)

DATE: MON, 24 AUG 1998 14:53:27 +0200

WF: Your work and thought has always centered around a problematic and complex notion of territory within data space and electronic networks, which you have variously described as spaces of action or events—concepts which have also been used to describe the fluctuating political, social, cultural realities of the city in contrast to its spatial organization. To which extent is your recent interest in urbanity related to fundamental qualitative similarities between the spaces opened by electronic networks and those traditionally supported by and created within the architectures of the city?

KR: Our discourse places itself outside an architectural framework. When we talk about problems of urban spaces, we mean the urban as a machinic assemblage that is constituted not so much by built forms and infrastructures, but as a heterogeneous field that is constituted by lines of forces, by lines of action and interaction.

These lines form the coordinates of an urban topology that is not based mainly on the human body and its movements in space, but on relational acts and events within the urban machine. These can be economic, political, technological, or tectonic processes, as well as acts of communication and articulation, or symbolic and expressive acts. The urban field that we are talking about is therefore quite different from the physically defined spaces of events and movements. Rather, we are interested in what the relation between the spaces of movement, the spaces of events and the relational, machinic "spaces" might be. It does not really make sense to oppose the city and the networks in the suggested way. We are interested in finding models of agency for and in complex dynamic systems and approach the urban as such a complex system. We understand the city not as a representation of the urban forces, but as the interface to these urban forces and processes. Therefore, the city features not as a representation, but as an interface that has to be made and remade all the time.

WF: Could you elaborate on what Knowbotic Research calls "connective interfaces" and describe their difference to the failed urban participatory models of the seventies?

KR: It is characteristic of the forms of agency that evolve in networked environments that they are neither individualistic nor collective, but rather connective. While individualistic and collective diagrams assume a single vector,

a single will that guides the trajectory of the action, the connective diagram is mapped onto a machinic assemblage. Whereas the collective is ideally determined by an intentional and empathetic relation between actors, the connective is an assemblage that rests on any kind of machinic relation and is therefore more versatile, more open, and based on the heterogeneity of its members.

The distortions are not generated by the networks, but they can be given a certain presence and an effective form in the interface, without necessarily becoming visible. The complex working conditions like those in the IO_dencies experiment in Sao Paulo create multiple irritations between the participating local urbanists and the producing institutions, the programmers, the hard- and software, misunderstandings, and wrong expectations. These distortions are present in the project without causing it to fail. On the contrary, they generate new developments. It is vital to become sensitive to the weakness of interfaces and to the potential forces that they bear. One aim is to recognize them and to turn them into tendential forces (IO_dencies) that may become effective sooner or later.

Drawing on Félix Guattari's notion of the machinic, we describe the interface as a machine in a complex aggregate of other machines. Connectivity can, in this context, mean different things: the combination of functionalities; the collapse and opening up out of a moment of conflict or rupture; or diversion and repulsion where no interaction can take place. What we are surprised about ourselves is this new, differentiated vocabulary that is emerging in relation to working with electronic networks: the interfaces ties together, folds, collapses, repulses, extinguishes, weaves, knots. All these activities, which are obviously not germane to our projects, make it necessary to rethink "networking" as a multifunctional, highly differentiated set of possible actions.

WF: In a passionate defense of the physical city, the British geographer and urbanist Kevin Robins has recently criticized current celebrations of cybercities and virtual communities (for example, William Mitchell's *City of Bits* [1997]) as conforming strikingly with Modernist notions of urbanism, in being driven "by a desire to achieve detachment and distance from the confusing reality of the urban scene." Although your interest lies with creating intermediary fields or interfaces between those two realms rather than in playing off one against the other, you clearly claim urban qualities for the spaces you create, by describing them as comparable with the "urban structures of megapoles." Could you elaborate on your sense of the urban and how it relates to that found in the countless digital cities?

KR: Our projects respond to one dominant mode of the urban, that is, its overwhelming, unbounded, uncontrollable experiential qualities. In this sense, we agree with Robins's observation about the "confusing reality of the urban scene," in this sense, we also agree with his criticism of digital cities and virtual communities. However, we are doubtful that this chaotic and disorderly nature of the urban is necessarily dependent on "embodied and local situated presence."

We must distinguish between the urban as a discontinuous flow, a transformation process involving social, economic, architectural, and so on, forces, and the city as a temporary, diagrammatic manifestation of the urban. The French urbanist Henri Lefèbrve wrote in 1970 that the urban as such is not yet a completed reality, but it is a potentiality, an "enlightening virtuality." The path of urbanization, however, is not unidirectional and does not necessarily lead to a transglobal urban zone. Rather, the urban is a complex, multidirectional process of connection and separation, of layering, enmeshing and cutting, which leads to ever-different formations.

The heterogeneous and permutating assemblage of materials, machines, and practices we call *the urban* implies a global stratum that is locally embedded. If the urban is something that one can work with, intervene into, or become a part of, then it is important to understand its forces and layers and also to understand how it interlaces the global with the local.

WF: Before engaging with the complex of the local–global relationship, can you specify your concept of an urban machinic and explain what kind of machinic agencies Knowbotic Research is aiming at?

KR: The urban is a machine that connects and disconnects, articulates and disarticulates, frames and releases. It offers the impression that it can be channeled and controlled, that it can be ordered and structured. The city is always an attempt at realizing this order which, however, is nothing but a temporary manifestations of the urban.

The machinic urban is always productive, as against the "antiproduction" of a fixed city structure. But its productivity lies in the creations of discontinuities and disruptions, it dislodges a given order and runs against routines and expectations. The urban appears in a mode of immediacy and incidentally, confronting a structure with other potentialities and questioning its given shape. We can clearly observe this tension between the urban and the city wherever the city appears dysfunctional and unproductive. But the urban machine is also productive at invisible levels, for example, where real-estate speculations are prepared that will disrupt an area within the city, or where a natural catastrophe or political instabilities will cause a rapid influx of large numbers of people. In these cases, the "finance machine" and the "tectonic machine" impact on a local urban situation.

The human inhabitants of cities are not the victims of such machinic processes, but they form part of them and follow, enhance, or divert given urban flows and forces. Contemporary analytical methods of the urban environment no longer distinguish between buildings, traffic, and social functions, but describe the urban as a continuously intersecting, n-dimensional field of forces: buildings are flowing, traffic has a transmutating shape, social functions form a multilayered network. The individual and social groups are co-determining factors within these formations of distributed power.

The machinic character of the urban means that there are multiple modes of intervention, action, and production in the urban formation. The relation between space and action is of crucial importance. There seems to be a reluctance on the part of many architects and urban planners to consider "action" as a relevant category. Rather, built spaces are much more closely identified with, and it seems, made for, certain types of behavior. The distinction between behavior and action is a significant one, behavior being guided by a set of given habits, rules, directives, and channels, while action denotes a more unchanneled and singular form of moving in and engaging with a given environment.

The suggestion here would be to move from thinking about a topology of objects, forms and behavior, on toward a topology of networks, a topology of agency, of events, and of subjectivity.

WF: One major issue addressed in your present project IO_dencies is the question of the "cultural identity" of the cities investigated—Tokyo, Sao Paolo—and the interrelation of local and global forces. Now on the one hand, the peculiar character of these cities emerges in the urban profiles provided by local architects and urban planners; on the other hand, and more importantly, you argue that "cultural identity" can no longer be located in the architectural structures of the megacities, but might be relocated in the activities of local and translocal agents who, by means of data networks, form a new kind of connective." From your experience with the project so far, what are your preliminary conclusions regarding the shape of cultural identity as it emerges through the cooperation of local and global forces?

KR: What is referred to as the global is, in most cases, based on a technical infrastructure rather than on lived experiences. The electronic networks form a communication structure that allows for a fast and easy exchange of date over large distances. But the way in which people use these networks is strongly determined by the local context in which they live, so that, as a social and cultural space, the electronic networks are not so much a global but a translocal structure that connects many local situations and creates a heterogeneous translocal stratum, rather than a homogeneous global stratum. The activities on the networks are the product of multiple social and cultural factors emerging from this connective local–translocal environment. We don't deny the existence of the global but see it as a weaker and less interesting field for developing new forms of agency.

There are local formations in which certain behavioral patterns emerge, and translocal connections make it possible to connect such specific local situations and to see how the heterogeneities of these localities can be communicated and how they are maintained or not in a translocal situation. Against the worldwide homogenization of the ideology of globalism one should set translocal actions that are connected but can maintain their multiple local differences.

The IO_dencies project is rooted in local situations, and we are looking for the productivity of the interface in the movement from the local to the translocal. In this continuing process, we are testing the translatability of ideas and cultural contents, the local points of friction, and also the heterogeneity of what is often seen as a more or less homogeneous local cultural identity. At the same time, we recognize that globalization is a reality, and

The E.U. commissioners have announced that agreement has been reached to adopt English as the preferred language for European communications, rather than German, which was the other possibility. As part of the negotiations, the British government conceded that English had some room for improvement, and has accepted a five-year phased-in plan for what will be known as EuroEnglish (Euro for short). In the first year, "s" will be used instead of the soft "c". Sertainly, sivil servants will reseive this news with joy. Also, the hard "c" will be replaced with "k", not only will this klear up any konfusion, but typewriters kan have one less letter. There will be growing publik enthusiasm in the sekond year, when the troublesome "ph" will be replaced with "f". This will make words like "fotograf" 20 persent shorter. In the third year publik akseptanse of the new spelling kan be expekted to reach the stage where more komplikated changes are possible. Governments will enkourage the removal of double letters, which have always been a deterent to akurate speling. Also al wil agre that the horible mes of the silent "e" in the languag is disgrasful, and that would go. By the fourth year, people wil be reseptiv to steps such as replasing "th" by "z" and "w" by "v". During ze fifz year, ze unesesary "o" kan be droped from vords kontaining "ou", and similar changes vud of kors be be aplid to ozer kombinations of leters. After ze fifz yer, ve vil hav a sensibl riten styl. Zer vil be no mor trubls or difikultis, and evrivun vil find it ezi to understand ech ozr. Ze drem vil finali kum tru!!! [T. Byfield <tbyfield@panix.com>, Toward A Europanto: A Five-year Plan (A Found Text[Extropians]), Mon, 2 Mar 1998 19:20:18 +0100]

that purely local interfaces are insufficient. The global generates circumstances that make it necessary to open the local toward the translocal, in order to develop effective forms of agency.

We were intrigued by the polemical hypothesis about the Generic City that Rem Koolhaas formulated in 1994. The Generic City is the city without a history, without the burden of an identity, the suburban nightmares and recent Asian boomtowns viewed under the sobering, cynical, pragmatic—dare we say: Dutch—daylight. Implicit in Koolhaas's suggestion is the relentless growth and the unstoppable expansion of the Generic City. In the twenty-first century, he seems to say, the Generic City will become the norm rather than the exception.

The Generic City is identityless. Yet, identity is not something that is the same for a whole city. People have or develop a clear sense of "home" even in the most decrepit of neighborhoods. Local people have an intuitive knowledge that allows them to distinguish between a street in Kreuzberg and Mitte, between Manhattan and Brooklyn, between Bras and Pinheiros. The identity that is constructed in such urban environments is a heterogeneous composite of different symbolic matrices, social, cultural, familial, that are local as much as they are translocal. A possible counterhypothesis to Koolhaas would therefore be that only few places are generic cities, and only a fraction of these will remain generic for longer periods of time. The generic is not the end, but a beginning characteristic of many human settlements. The project IO_dencies asks how, suspended between local and global activities, urban characteristics are enhanced, transformed. or eradicated, and it investigates whether the extension of the urban environment into the electronic spaces might allow for changed qualities of urbanity. Is communication technology the catalyst of the Generic City, or is it the motor for another, transformed notion of urbanity and public space?

WF: You have compared the creation of nonlocations to a mode of construction that you claim to have always been a concern of architecture as well: "the constructability of the unconstructable." Is not the present project, in drawing on data and parameters employed by traditional urban planning, in danger of relapsing, as it were, into construction—of constructively contributing to a kind of advanced urban design, for which your experimental data spaces may serve as a model or at least complementation by which it may come to terms with the unpredictable processes of the heterogeneous and fragmented urban field?

KR: Here you refer to experimental settings Knowbotic Research developed in the past. Our current research tries to push nonlocations toward fields of agency and presence and we are rather doubtful if the term "under construction" may turn the attention in the right direction.

Our recent projects are not meant as urbanistic solutions, but they seek to formulate questions about such urban interfaces, about visibility, presence and agency within urban assemblages. We aim at experimental topologies of networked intervention, which are able to offer a connective form of acting inside urban environments, between heterogeneous forces and in multiple,

differentiating ways. The relation to the concrete city environment is maintained through working with young local architects and urban planners who are searching for other ways of dealing with the problems and challenges of the city they live in. The aim, however, is not to develop advanced tools for architectural and urban design, but to create events through which it becomes possible to rethink urban planning and construction. The question we raise is: What can be done if we accept that urban environments, systems of complex dynamics, cannot be planned and constructed anymore in a traditional modern sense?

Urbanism, in exploding megacities with high social inequalities, means that city space is delimited and planned only for about one third of the inhabitants, the rest of the people stay outside the walls of the capitalized space. It would be politically precarious to speak of this other two thirds, the so-called illegal city as a nonlocation. In our studies we found clear needs for relevant forms of agency that are able to deal with the complex processes of urban exclusions. These forms of agency don't have to deal so much with the rearticulation of territory, but they have to invent and produce existential interfaces for the visible and invisible forces of a city in order to avoid political, economical and cultural isolation.

IO_dencies explores the phenomenon of urban agency and distributed and networked subjectivities on different levels. Initially, it seeks to develop innovative ways of reading and notating city environments, drawing out their energetic and dynamic elements. This provides the basic data for the following, collaborative manipulations of specific urbanic strata. We outline interfaces that are able to transcode the analyzed data and facilitate different forms of access to the urban machines. Analysis, interface development and practical collaborative involvement are all part of a process that represents an inquiry into the structures and the points of potential transformation in urban environments.

WF: Yet, if the observation about a certain constructiveness of your current project is correct, then how does it relate to the claim of yours that your work is intended to enable intervention and resistance? Where, specifically, would you place the locus of resistance and intervention both as a capability of your machinic constructs as such and as a possibility of the user within the fields of action thereby created? In terms of the Deleuzian notion of the machine as that which interrupts a flow, how does the internet-aggregate of IO_dencies cut into the given physical spaces and the lived urban experience of the urban quarters investigated?

KR: First of all, it is important to affirm that we are not building urbanistic tools for a general use, and that the models we develop cannot simply be deployed in a political or social context. IO_dencies offers experiments for a small group of people who are highly motivated and looking for individual ways of participating and intervening in their local urban situations. Even those with an academic background as urbanists and architects are frequently disappointed by the methods and models of agency that are dominant in planning offices. IO_dencies tries to initiate a concrete process inside

the group which allows for a specific form of locally and translocally determined collaborative actions, accompanied by software processes that try to support the individual needs inside the group communication.

Contemporary cities are covered with successful and failed attempts at leaving such traces and creating such feedback loops. The noise from roaring cars and ghetto blasters, the ubiquity of graffiti and tags, stickers and other lasting marks, even temporary and permanent pieces of architecture are clear attempts at creating a lasting visibility and presence in the urban environment. Viewed from a cultural and from a political perspective, however, this kind of visibility is rather powerless if it is not coupled with opportunities to act and to intervene in the public arena. A possible hypothesis that follows from the experience of Anonymous Muttering is that in complex machinic systems like the urban, effective intervention is only possible in the form of a connective agency within which the different individual and machinic tendencies and potentials are combined and connected. This form of agency would not develop its strength through being localized and aimed at a certain goal, but would be composite, heterogeneous, dynamic, and to a certain degree subjectless.

IO_dencies works in a very different way and tries to develop interfaces that allow for a more conscious engagement with urban forces. It has to be said that, in the different cities, we are initiating extremely singular processes and singular tools that do not represent "Tokyo" or "Sao Paulo," but evolve in a close collaboration with groups of specific urbanists, architects and others. This method is also a result of the discouragement of the higher goals that we had set out prior to the Tokyo project. We are becoming more sensitive to the specific local circumstances, and we have to formulate the interfaces in a way that makes it possible for people to insert and develop elements of their cultural identity.

In this sense it is questionable whether we are dealing with "the urban" at all. Rather, the goal is to find out whether it is possible, in a situation where the city itself is being deprived of many public functions, to develop electronic interfaces that open up new forms of agency, and whether network interfaces can become useful in local as well as in global contexts.

The question of responsibility can be understood in a concrete ethical sense. Large parts of the public functions of the city are currently moving into the networks, which leads to new mechanisms of exclusion within the urban environments. The political question would be whether it is possible to conceptualize interfaces that can subvert such processes of exclusion. Building interfaces means to allow for change to happen. We do not want to build a better world, but only better interfaces that enhance the perceivability and the respect for the actions and the needs of others and allow for a heterogenization of social relations. Difference, otherness and becoming other, the possibility of multiple singular processes, are moral necessities. Connective interfaces enable the formation of aggregates of multiple heterogenizing machines.

[This is an excerpt of an interview made for Film+Arc Biennale, Graz.]

SUBJECT: INTERVIEW WITH MARIA FERNANDEZ

FROM: CRITICAL ART ENSEMBLE (BY WAY OF STEVEN KURTZ <KURTZ+@ANDREW.CMU.EDU>)
DATE: {WED, 29 OCT 1997}

Maria Fernandez has taken an active role in the formation of colonial studies in art history, applying postcolonial theory and cultural history to art history and historiography. She is also active in postcolonial and multicultural critiques of electronic media art.

CAE: A postcolonial perspective seems to be absent from the major discourses in media theory in North America and Europe (in spite of the fact that postcolonial theory is well developed and even institutionalized in the U.S., Canada, Australia, and the U.K.). At best, it seems to be a marginalized undercurrent. Why do you think these two knowledge pools have very little overlap?

MF: The interests of the two fields have been quite different. Postcolonial studies have been concerned with issues of identity, representation, agency, gender, migration, and with identifying and analyzing strategies of imperial domination and/or resistance in various areas of theory and practice. This includes fields that people do not traditionally associate with imperialism: biology, history, literature, psychology, anthropology, popular culture, and most recently, art history and philosophy.

Particularly in the eighties and early nineties, much of electronic media theory (the little that existed) was concerned with establishing the electronic as a valid and even dominant field of practice. In fact, many theorists were knowingly or unknowingly doing the public relations work for the corporations. This often involved the representation of electronic technologies—particularly the computer—as either value-free or as inherently liberatory. The exponents of such rhetoric could not afford to acknowledge the existence of theories concerned with the analysis of imperialist strategies, at least not until they felt sure that their goals were reasonably well accomplished.

CAE: In the U.S., the utopian rhetoric of *Wired* culture has been harshly criticized by different leftist factions as a blind apology for predatory capitalism and enslavement to its work machine. While the extreme ethnocentrism involved in the "California" position has been named, there is only a modest amount of work on the way in which imperialist ideology is replicated in this discourse. Do you have any insights into this matter?

MF: I attribute this lack to the separation of the two fields. As you have said, the two fields have developed parallel to one another, but have very few points of intersection. I also think that, at least in U.S. academic circles, that there is still some hesitation about referring to the U.S. as an imperialist power (gasp!). The replication of imperialist ideology in utopian positions of the *Wired* magazine variety is really not hard to recognize. Have not virtually all imperialist projects adopted utopian and humanitarian rhetorics? Was it not humanitarian ideals that supported the "civilizing mission" of the French, British, and other colonial powers? The belief dear to "California" ideologues—that pancapitalism is a "natural" result of "evolution"; the defense of free enterprise against government intervention; the supposition that unregulated commerce will bring about individual freedom, democracy, and even the elimination of human suffering—all these were all prefigured in the nineteenth century. Does any one remember Herbert Spencer?

CAE: In Western and Central Europe (the U.K. notwithstanding), postcolonial theory has not done any better. At the major media festivals, there is little if any effort to integrate this line of thought into the discussion. Such matters are left to the more politicized conferences such as the Next Five Minutes or Metaforum. What obstacles do you think stand in the way of the development of a mainstream platform for postcolonial thinking? Can this situation be linked to the current government/E.U. support for media festivals and new spaces such as Zentrum für Kunst und Medien in Karlsruhe?

MF: Some Europeans view postcolonial theory as an example of political correctness (which they perceive as the dominant ideology in the U.S.) and not as a field of inquiry with any relevance to them. I have asked the same question to artists and intellectuals in Germany, France, and Scandinavia that you are asking me; the response I have invariably received is that Europe is not experiencing the same immigration pressures as the U.S. and since the population of the country in question is to a large extent "homogeneous," postcoloniality is not an issue. Even people from large, multicultural, cities including Berlin and Paris, have given me the same response. This attitude ignores even the histories of colonization within Europe itself! The perception of European countries as "homogeneous" could be a very good reason why the discussion of colonialism/postcolonialism is not mainstream.

I think that in the case of government and E.U.-sponsored media festivals and institutions, the situation is more complex. Traditionally, culture supported by states or government entities is culture that can be used to support official positions of what culture should be, not to mention to uphold official representations of national or ethnic identities. Culture produced with the help of technology is no exception. In fact, technology has always been at the heart of such representations. One only has to notice the privileged place accorded to technology in accounts of both colonial conquest and nationalism. As in the past, if technology is being used to support official constructs of identity, even at the broad level of the E.U., this could be a very good reason to exclude theories that focus on the marginal and the hybrid.

CAE: Postcolonial theory has not managed to insinuate itself into academic institutions in most of Europe. Why has it been relatively successful in the U.K. and North America, but nowhere else?

MF: No one in the U.S. can maintain that the population is "homogeneous" (although some still argue for the values of integration). Non-Europeans have long been established in American urban settings and have impacted the way many people live and think. Minority groups and their supporters have been very vocal about including multiple cultures in academic curricula, and since many of these cultures have colonial histories, it has been impossible to leave out discussions of colonialism and imperialism.

This in no way implies that racism is not thriving or that colonial/post-colonial studies are dominant. As you know, proposals for "multiculturalism" in educational curricula have resulted in bitter debates about what culture and "the American heritage" really are. In addition to the activism of minorities, the relative success of postcolonial theory in the U.S. is to due to the presence in universities of academics from former European colonies. I understand that this is still quite rare in Europe.

CAE: We need to invert this line of questioning. Why haven't people active in postcolonial discourse responded to new media developments when they know they are key to the development of the postcolonial situation? Just recently on Nettime, there was an interview with Gayatri Chakravorty Spivak. She all but refused to answer questions having to do with media theory, and went on with her usual literary theory. To what extent are postcolonial representatives refusing to engage the discourse, except for places where it's comfortable for them, such as in film theory?

MF: Postcolonial theory has been predominantly literary. Most theorists teach in English and Comparative Literature departments. And despite the current hype for interdisciplinarity, academics, at least in the U.S., rarely venture too far from their established fields. One must recognize that the analysis of a diverse range of texts has been invaluable for developing postcolonial criticism, as has the analysis of popular culture, television, film, and video. I am not sure if most postcolonial theorists realized that new media were crucial for the further development of imperialism (I think Edward Said conceded as much in an interview). I suspect that at least some of them thought that the debates about new media were distant or even distracting from what they perceived as more immediate problems. The preference of postcolonial theorists for video, film, and the plastic arts may be dictated by the media that predominate in the developing world. The advent of digital media in developing countries is very recent. In 1990–92, for instance, it was really hard to find visual artists working in these media in Latin America. This situation has changed in the last few years, but these practices are not yet as widespread as they are in the U.S. and Europe. We must note, however, that the advent of commercial digital networks, while they remain invisible in much of the developing world, have had a powerful effect on those economies.

CAE: Video is another comfort zone for postcolonial theorists and for those artists who use it as a conceptual foundation for their work. Is this a situation of too little too late? Video is a dying medium. Will the current trend of video based installations in both the U.S. and Europe save it from consumption by the digital?

MF: I find it difficult to criticize artists from the developing world who use video. In many cases, this is the most advanced technology they've got. As cheap as digital technology is getting in the overdeveloped world, it is still prohibitively expensive in many parts of the planet. This will undoubtedly change as prices continue to drop and people become adept at manipulating digital media. In some cases, artists deliberately choose not to work with the latest technology or trend. This has been an ongoing subject of debate in the critique of Latin American and African art of all periods. Europeans and American critics often view the arts of these regions as being derivative and retardaire. It's only recently that they have begun to realize that anachronistic works can be made intentionally. I do have to agree with you that the engulfment of video by digital media seems imminent at this point. But it will not happen in all places at the same time.

CAE: To end on a more concrete note: Two electronic artists recently show-cased who are interested in postcolonial topics are Guillermo Gomez-Peña and Rafael Lozano-Hemmer. What strategies or tactics in their work do you find valuable?

MF: I find the work of both artists extremely valuable. Guillermo Gomez-Peña and his partner Roberto Sifuentes were key in catalyzing the current discussion of border culture and hybridity in artistic and academic circles in the U.S. Guillermo's theoretical writings and performances have been effective in calling attention to the stereotypical representation of Mexicans in U.S. popular culture. These stereotypes are not without serious consequences. They are at the very heart of U.S.—Mexico relations, not to mention basic to the appalling treatment of Mexicans and people of Mexican ancestry within the U.S. I think that Guillermo and Roberto's participation in electronic media festivals is productive, as it may open up much-needed discussion about issues of difference, marginalization, and hybridity, as well as provide refreshing alternatives to Euro-American visions of the future. But because their work has not yet grown within the digital, it is unlikely to engage the geeks and techno-utopians.

Rafael Lozano-Hemmer and his partner Will Bauer produce work that is very seductive at the technological level, in addition to being visually and theoretically interesting. I understand that they have been working for about ten years just on the technological apparatus of their pieces alone. Their interests are by no means restricted to postcolonial issues. Their piece, "Displaced Emperors" dealt with issues of power, history, memory, virtuality, architecture, presence, sensuality, desire, agency, and colonization, within

SUBJECT: THREE INTERVIEWSWITH PAUL GARRIN 1997–98

FROM: MEDIAFILTER (MF@MEDIAFILTER.ORG DATE: TUE, 20 OCT 1998 17:17:12 -0400

The domain name issue and Paul Garrin's Name. Space has been a controversial topic for a while now. The flamewar in September 1997 on Nettime about this was one of the reasons to move from an open list to moderation. Name. Space has from the very beginning been part of the Nettime agenda (if such a thing exists). Paul Garrin was one of the twenty participants of the founding meeting in Venice (June 1995). Name. Space can been seen as a results from Garrin's efforts during the Next Five Minutes 2 conference (Amsterdam, January 1996) to establish a "Permanent Autonomous Network." The attempt to question one of the fundamentals of the internet, the control over the domain names by governments and monopolistic corporations, can be interpreted as a radical form of net criticism, beyond the initial critique of the *Wired* ideology (R.I.P.).

Soon Name. Space became more than just a concept. Paul appealed to all of us to support the project and reconfigure our servers. Not everyone was convinced that the software would work. Some became suspect about the way Garrin turned this common effort into a private business. Name. Space became identical with legal documents, complicated technical terms and horrendous (macho) fights. Because of legal reasons, Paul cannot always speak in an open manner and we have, more or less, accepted this. We asked him about the current state of the project, how artists are running a business, the international aspect of the domain name system (DNS) and how we can (again) get involved.

Q: You are an artist. You went deep into technology with Name.Space, but this is not the first time you did it. What, in general, does art have to do with media and technology, and do how you define your place in it.

A: Control media and you control the public. Free media is a threat to control. As an artist, one strives to discover an effective means of working in any medium—and when that medium is a mass medium, the key is to establish and sustain visibility. If there is no support system to guarantee reliable distribution, the work disappears.

One of the main concerns in my work has been the notion of the public vs. the private. Territory. Security. Privacy. And the way that "the media" manages the perception of the public. These things have always been of interest to me. A name is an essential and universal element. On the net, the uniqueness of the name is imperative. In capitalism, the idea of uniqueness means "value"...commodity. One of the key elements of oppression and control is to control the notion of identity. Within the stan-

dard of the "domain name system" the message is control, "domination," "territory."

Being an artist does not condemn one to being an idiot savant. Making art takes vision. Limiting your definition of art to the confines of the art institutions limits vision. Look to the world, not to the art world and you will understand where I am coming from. My work is not about crafting things but about creating situations. Where to look and what to look at is determined by the situation and its contextualizaton. I have approached all of my projects in this way, each with its own challenges and learning curves and a minimum of repeated effort, building on each experience.

Q: Why do you look down on artists and activists that still work in old ways, like getting grants, living on the dole, temporary jobs in schools, and so on? Your enterprise is very strategic, I can see that. But should we all start running businesses now?

A: I don't know where that perception came from. I don't look down on anyone. It's more about looking at the impending future of theirs and our disappearance, or at least the disappearance of any hopes of creative freedom and autonomy. In a very real sense subsidies, especially for unpopular, non-mainstream ideas in art and media are gone in the U.S. and are on the road to extinction in Europe. Japan's postwar funding structure has always been tied to corporate PR and in light of their present economic crisis, is even tighter and more closely bound to the corporate mainstream.

We see how institutions like ZKM (in alliance with the Guggenheim) set their agenda according to the pulse of Siemens and Deutsche Telekom. Forget any social criticism or political content or forget their deutschmarks. Their agenda is to accumulate wealth and property and take credit for defining the art of the time in their own image (or at least one that syncs with their PR agenda) not to support living artists and the nurturing of their ideas. Control the Art and you Control the People. I was told by the ZKM at one point that they had considered buying my work but in the end didn't because it is too controversial (I have a letter from a curator stating this).

Starting a business is a serious risk. I am not a "trustfund" boy and am not independently wealthy. I took money that I earned through my work and invested it in creating my company, pgMedia, Inc., and in developing and deploying Name.Space—all at great personal risk. For me it was no question that it was the right thing to do and that it was the right time to do it—and that the concept has a high likeliness to succeed in the marketplace and generate a stable enough income to run a network and fund the growth of resources and future development. A *serious* career choice and A *good* risk to take, not to mention an interesting and challenging way to spend my time...

I could have taken that investment and created another installation that would have easily consumed all my available cash. And it would have been another dead end. There is no relevant market for my artworks in the existing structure of the art world. Art should not be created in accordance with market demand or acceptance by the corporate elites. The critics and

skeptics who doubt my abilities or intentions obviously doesn't know me and are reacting on ignorance and not on insight. Some believe that failure is the ultimate success, and that loss of their victim status would rob them of their purpose. I couldn't disagree more.

Q: So even if your main field is not art anymore, what is driving your fight for a certain autonomy within the new media?

A: Art alone does not assure our survival or even the creation of more art. In order to assure the autonomy of the content, totally self regulating, without the control of commercial interests, it is imperative to buy the bandwidth—the only option to eventual disappearance of free media when the "Disneyfication" of media and the net is completed. Sponsors have their agendas and their limits to "tolerance." This has been demonstrated time and again and should by now be understood. The idea of what is "authoritative" and what is "acceptable" should not be controlled by commercial interests.

One important aspect of Name. Space is to prevent the privatization and commodification of language. Some companies and individuals claim proprietary ownership rights to words such as "web" and "art". One individual even claims ownership rights to the letters "a" through "z". This monopolization and claims of ownership of common words harms the public interest. The privatization of language must be viewed as a negative trend. The Name.Space model creates an expansive top-level namespace that is in the public domain. The top-level namespace is not owned by anyone and is meant to be shared even by competing registries. The registries provide a service in the public interest and trust and do not "sell property" or otherwise make claims to property. Top-level names can come and go according to use, like a natural process. If there is demand for even one top-level, like art or media, which can be shared by the public, then it will be created within any bounds of the existing technology. If there is no longer demand, it can be "retired" in order to free up space for other new top-level namespaces that may come into being, including non-English categories, some of which exist today.

Q: Do you see this movement against the rise of monopolies?

A: Large corporations, who came very recently to the net, such as Time Warner and Disney and Microsoft have bought up network capacity all over the place and have also become content providers, if you can call it content. This is the disappearance of public space on the net as I wrote prior to the Next Five Minutes back in 1996. The idea of the permanent autonomous network was based in maintaining free zones on the net which mutually support each other and establish economic models to assure their presence by generating revenues to buy bandwidth—because to guarantee the survival of free art and free media on the net an infrastructure must exist along with an economy to support it. As the big content providers buy up connectivity and resources upon which we become increasingly dependent, they establish pri-

vate areas in which they control the content through various means. There is no guarantee of access or autonomy of content. The net result is a disappearance of support systems for noncommercial and controversial content, as well as privacy and security.

Q: What is the relation of names and the political economy of the internet, then?

A: Survival of media independence demands creation of an economic structure that is basically a self-sufficient, self-supporting network. Name. Space is conceived as a service to potentially fund the bandwidth that we need. Apparently the market for domain name registration is a large one. Revenues generated through fees for name registrations and other services would be adequate to fund our networks and to support our cooperative partners in Europe and even, hopefully, sponsor some other activities for producing media and holding conferences. So I think that it could be a very important aspect of independence of not only buying and providing bandwidth and server resources, but also supporting content production. It is not necessarily a question of how much bandwidth, but that we have any at all and, of course, what we do with it is of vital importance.

It doesn't take an economist to realize that Network Solutions (InterNIC), who have made claims of ownership of the top-level domains (TLDs) like .com, and .org is profitable now, unlike most of the wannabe vaporware silicon-alley-valley-gulch-mulch hypesters whose overvalued stock prices are magnitudes higher than cash flow and are *losing* money like crazy. NSI claims that the demand in 1998 represents only 2 percent of the potential market for domain names.

Over the years I have established my commitment to the promotion and support of independent media and alternative channels of communications. On my own initiative, time, money, and labor, I have established a strong net presence for excellent independent media and content through MediaFilter, which first went online on March 1, 1995, and has since grown to over 240,000 unique hosts visiting per month, pumping out 2 gigabytes per week of content that has become a well for research, education, and journalism [including online editions of independent investigative journalism such as *Covert Action Quarterly* or *The Balkan Media and Policy Monitor*].

Q: So do you want to become a big player yourself, an owner of the means of production? Who will profit?

A: Well, this is always a question of scale, scale is a question of money, if it turns up that we end up making money in the billions, sure we can lay fiber, and buy up satellite links. I wouldn't say that this is in our two-year plan, but I wouldn't rule it out either. In fact I am known for my capacity for reinvesting resources and therefore, if we do make that amount of money, I am not that kind of person that buys fancy clothes and a Porsche and moves to a house in the country, I would put that into infrastructure, research, and development—including developing new young talent.

Q: How do you see the improvements of Name.Space? At what point is Name.Space now, if we leave out the whole legal battle?

A: There are many aspects to the Name.Space project—business, autonomous policy, networking strategies, long term thinking, extra-institutional ways of working, technical details, standards, U.S. laws, global considerations—all of these are in dynamic interplay and we deal with them on a day-to-day basis. If we have a "routine," that pretty well describes it. All of those aspects are of equal importance and it is critical to keep them all in perspective while dealing with them each individually in a practical, hands-on, nuts-and-bolts way. The need for specialists in each field goes without saying and we have an excellent team to deal with each of these aspects. Collaboration and cooperation are essential elements for the success of any large-scale project. Sure, the Name.Space project was initiated by me, but it is by no means a solo effort.

Q: So isn't it based on a simple hack?

A: Not at all. It's based on running the code as it's meant to be run. DNS is scalable at all levels. There is no real limit to the number of top-level domains, or the number of domains at any level of the DNS. Running new top-level names is not a difficult thing. Its simplicity is almost obscene. The issue of global recognition is the key. Right now, Name.Space lives as an intranet within the internet. Like a matter of perception, the recognition of Name.Space nameservers or not determines whether Name.Space exists or not. Like changing channels—Removing the censorship filter. This is a "grassroots" thing, and my favorite aspect of the potential of Name.Space—the individual's ability to choose their view of the net... Unregulated by commerce or government. But all TLDs should be globally interoperable because that's what the internet is all about. Therefore, we have been working hard to find a legal and political solution to globally recognized new TLDs to be administered in a fair and inclusive way, globally.

The convention of DNS is not the issue presently—it's the scope of its possible implementation. Name.Space works with the existing DNS software and protocols, exactly. There is no difference. Name.Space *is* DNS...and about exploring the potentials of a free namespace. Name.Space, from its beginnings has always been a collaborative and cooperative project. Most of the top-level names were suggested by users via a suggestion form on the Name.Space website. The SINDI project conceived by Name.Space will enable the total decentralization of name registries.

Q: So how about the legal aspects of your fight?

The net has been declared by international law expert Henry Perritt as a "global commons," much like the oceans and waterways, electromagnetic spectrum, space, geosynchronous positions in space, and other shared resources of the earth that are not exclusively controlled by any sovereign.

The case between pgMedia/Name.Space and NSI is a classic "essential facilities" case between two private companies. The "." is controlled by NSI exclusively and they must according to law allow reasonable, nondiscriminatory access to it.

The matter of access will be settled between the two companies, and the U.S. government will stay out of it not to violate the First Amendment and to uphold the Clinton administration's stated policy *not* to regulate the internet. As a separate issue, the establishment of independent NSP's internationally in accordance with all local jurisdictions will happen naturally as there is demand in the local markets. The "." being the global commons that it is must be managed responsibly and treated for what it is: a new industry that has grown into a rapidly emerging global market. The internet is international and ideally, self-regulating, and the reality is that market forces will determine the dynamics of the net.

When I studied the logistics of running DNS, I realized that the limits on it were artificially imposed in order to limit supply and facilitate control. The central database and "whois" records are all controlled by Network Solutions, Inc., which is a subsidiary of SAIC (Science Applications International Corp.), one of the largest private contractors for the U.S. National Security Agency, the Pentagon, and the Internal Revenue Service. Most of the top corporate officers are former U.S. military personnel who have retired from service and are engaged in "private practice," putting their militarily acquired skills to work for profit. In effect, when one registers and pays Network Solutions for a domain name, they are also paying to maintain surveillance on themselves.

Ask yourself. Is this what you want? Does it make you feel comfortable?

SUBJECT: ART ON THE INTERNET —THE ROUGH REMIX

FROM: TILMAN BAUMGÄRTEL <TILMAN_BAUMGAERTEL@COMPUSERVE.COM>DATE: MON, 12 OCT 1998 13:36:58 -0400

It somehow made sense to me when my Walkman stopped working. I had used it to recorded all of the interviews, that have been remixed for my contribution to this book, and it broke down the day after I had finished transcribing the last of the interviews with a net artist. To me this technical problem marked the end of an era. The first formative period of net culture seems to be over. Books like this one seem to sum up the exciting years that followed the discovery of the internet by artists and intellectuals.

The interviews that my Dutch colleague Josephine Bosma and I did in the last couple of years are sort of an oral history of this period. These interviews, that were posted on Nettime and a couple of other mailing lists, were something of a news agency for the artists, critics, and audience that were

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[/m/e/t/a/ (meta@null.net), Wed, 14 Oct 1998 00:58:23 -0800] interested in art on the internet. Josephine and I were to some extent confined—due to geographical reasons—to the part of the developing net art community that identified itself as net.artists with a dot in the middle. I can't speak for the both of us, but I tried make sure that I wasn't just the ventriloquist's dummy for this exclusively European circle and tried to get in contact with artists who were not part of the traveling circus that meets at European media art festivals such as Ars Electronica, ISEA, and so on

For me the interviews were an attempt to escape the well-known rituals of the art world. After more than ten years of overtheoretical, dull, humorless writing on contemporary art after the period of Institutional Critique or Context Art, I tried to return to an approach that was more down-to-earth. And, as the many responses I got over the net to these interviews showed, a lot of people enjoyed those artists' statements better than a Lacanian reading (or other interpretation infested with the terminology of another trendy philosopher) of net art projects. In addition, doing interviews was a way of materializing the immaterial net art projects—at least on paper. To make this virtual reality visible again, I had artists tell me stories about it.

What's needed in the future will be more of a problematization of the issues that many of these interviews raise. Were the net.artists well advised to locate themselves within the art context? Will net art (given that it is an art genre at all) keep its freshness and uniqueness with the growing interest of art museums? Or will we see the same tiresome processes of institutionalization that happened to video art twenty years earlier? I was taught in journalism school that a journalist must never write, "It remains to be seen." But at this point I can't think of any other answer to the questions I am asking myself.

I am sure that some artists won't appreciate finding their quotes taken out of the context of the interviews and put together in a collection like the one that follows. My intention was to point to motives and ideas that kept emerging in these conversations. One might want to keep them in mind when approaching net art in a more theoretical way.

The quotes were taken from more than twenty-five interviews I did with artists who work on the internet from late 1996 to the summer of 1998. Excerpts from them have been published in online and print magazines and newspapers, such as *Telepolis, Intelligent Agent, Die Tageszeitung, Spiegel Online*, to name just a few. I am grateful to the editors of these publications that they supported my research into net art by publishing articles and interviews on a subject that must have been rather dubious to most of them.

Some of these interviews went over the Nettime list, the majority of them however didn't. Some—as the interview with Jodi—have been reprinted over and over again by now. Others have been sitting patiently on my hard disk for months. The whole bunch of them will be published in German in a book called *net.art—Kunst im Internet* (Cologne: suppos-Verlag, forthcoming).

BEGINNINGS

Robert Adrian X: There was a completely absurd episode in 1956, when I was still in Canada. I was working in a jazz club, and one of the musicians there told me that the Canadian Pacific Railway Co. was looking for people to work in an installation that involved a computer. The normal office workers couldn't

handle it so they were looking for people to come in who could improvise—create a system for the machine. To me it was just a temporary, well-paid job. I guess there were about twelve of us—artists, musicians, students, writers—everybody was under twenty-five. They had built a whole building in Montreal for this computer—which probably had about eight kilobytes of RAM. The computer counted railway cars. The data on the railway traffic was collected at different locations in Canada. They wanted to know exactly where each car was, whether it was empty, whether it was full, what was loaded etc. We got this information on teletype machines that also made punched tapes we turned into punched cards. Every night the cards were sorted and transmitted to Montreal. I worked in the Toronto Data Center, and we had to communicate with the other data centers, the Computer Center in Montreal, and the train yards in our region, so we were always online via teletype.

Padeluun (Bionic): [In the art scene of the eighties—TB] there was nothing of interest to us anymore. There was nothing that got you excited or that even had some sort of vision. But here [with computers and BBSs—TB] was something, that made us think. There is something going to happen in this field... It will change our society, maybe even better it. Let's see what comes out of it. We started to go to industry fairs instead of art shows. We found out that at these fairs there were also people with smart, funny ideas. We started to look at contemporary scientific theory because we started to understand that this didn't become part of art and culture at all. There was no transfer, no translation into everyday culture.

Heiko Idensen: In 1984 I went to the art show "*Les Immaterieaux*" at the Centre Pompidou in Paris, that was co-curated by the postmodern philosopher Jean-François Lyotard. The question was if postmodernism could be shown in a museum. Part of it was collaborative writing project, where French thinkers discussed via Minitel system. Lyotard had introduced fifty terms like *absence* and *navigation*, topics that are still up-to-date today. You could participate in this at the museum. I personally couldn't even use French keyboards, but it left a huge impression on me.

Mark Napier: I used to paint. The nice thing about painting and sculpture is that those art forms don't crash. I got my first internet account in July 1995, put some of my paintings on my homepage, and then realized that this medium was completely separate from painting. Just scanning the images changed their nature, and of course I could create so many effects with Photoshop that the original painting no longer existed by the time I posted the image on my site. A few weeks later I took down all the paintings and started playing with HTML to see what I could get it to do. I experimented in hypertext "essays" (for want of a better word) like Chicken Wire Mother and the Distorted Barbie, before I got into a much more painterly, interactive approach, like what I'm doing now in POTATOLAND. I haven't painted since summer of '95.

Marko Peljhan: I was a radio amateur from when I was eleven years old. In Yugoslavia during socialism there was a big radio scene, and as kids we would go to the radio club and talk with people all around the world on short wave radio. When I think about it now, it was very formative for me, because it was a very global experience.

Olia Lialina: On the Homepage of Cine Phantom [a cinema for experimental films in Moscow where Lialina is film curator—TB] I used to put AVI-files into the pages. You could theoretically show a whole film on the page. But that wasn't enough for me. I asked myself how one could show film and filmic thinking on the net. I tried to do my experiments with storytelling with HTML instead of film footage.

Alexei Shulgin: My first experiment with the internet was in 1994, when I set up an online gallery of Russian art-photography. The reason to do this was very political, because it was against the existing practice of art curating and had to do with exclusion and inclusion. There was a big show of Russian photography in Germany. Some very interesting projects and series of works were not included because of the obvious ignorance of the curators.

TB: On the German or on the Russian side?

Shulgin: Both, because they were too busy with political games. As a photographer I was included in this show, but I thought there was something wrong with the whole concept. So I proposed to do a kind of supplement to the show on the internet.

Walter van der Cruijsen: My enthusiasm for the internet came from the fact that I finally found a medium where I could give all these immaterial ideas a place. In 1993 the Dutch Hacker cub "Hacktic" organized a congress that was called "Hacking at the End of the Universe," which took place on a camping ground. I was invited by some friend there. I didn't know much about the internet. After this congress it went really fast. I wrote the concept for the "Temporary Museum" for an Internet-Environment, and for some time it existed as the art space in the "Digitale Staad."

THE NET

Jodi: When a viewer looks at our work, we are inside his computer. There is this hacker slogan "We love your computer." We also get inside people's computers. And we are honored to be in somebody's computer. You are very close to a person when you are on his desktop. I think the computer is a device to get into someone's mind.

Debra Solomon: I like to refer to it [the net—TB] as Tamagotchi-culture. When you are online twelve hours a day, your desktop becomes your (audio)visual environment... You talk with all these people [with videoconferencing systems—TB] while you are doing your work. We practically live in the visual world of our desktops. Like the_living says, "We are the people in the little plastic egg."

Jordan Crandall: I see the internet as a network of materializing vectors. It is really involved with creating new material forms and refiguring existing forms. People talk about disembodiment on the net, and I really don't know what they mean. For me it is very embodying, it just embodies in different ways. I like to watch how technological paces affect daily rhythms and routines.

Jodi: I don't think you really avoid the art world by doing things on the internet. It was more that we were already working with computers. And I found that the best way to view works that were made with a computer was to keep it in a computer. And the internet is a very good system to spread this kind of work. The computer is not only a tool to create art but also the medium to show it within the network. And since the network doesn't have any labels, maybe what little Stevie is doing is art. It's the same with our work: there is also no "art" label on it. In the medium, in which it is perceived, people don't care about this label.

SPACE

Robert Adrian X: ... When the machines are on and your fingers are on the keyboard, you are in connection with some space that is beyond the screen. And this space is only there when the machines are on. It is a new world you enter. For me it was never a question of travel. For me it was always a question of presence, of passing through some membrane into another territory. It's not about things, it's about connections. Of course, we were prepared for this by conceptual art, by minimal art and all these movements. An electronic space is very easy to imagine once you have grasped the idea of a conceptual space for art works.

Eva Wohlgemuth: The net contains space and spacelessness at the same time, and you are always reminded of that when you work with the net. It makes it possible—at least in theory to access the material you work with from any place in the world—without dragging stuff around with you.

Paul Garrin: In the last couple of years there has been a gentrification of neighborhoods, now there is a Disneyfication of the net. That is as dangerous. I warned two years ago at the conference Next Five Minutes in Amsterdam of a disappearance of public space on the internet. Back then, John Perry Barlow said: "That will never happen."

Jodi: It makes the work stronger that people don't know who's behind it. Many people try to dissect our site, and look into the code. Because of the anonymity of our site they can't judge us according to our national culture or anything like this. In fact, Jodi is not part of a culture in a national, geographical sense. I know it sounds romantic, but there *is* a cyberspace citizenship. More and more URLs contain a country code. If there is ".de" for Germany in an address, you place the site in this national context. We don't like this. Our work comes from inside the computer, not from a country.

Bunting: I don't really surf the internet. I take great pleasure in wandering around cities, and seeing what happens, and London is a good place to do that. If you ever get bored, you just go out your door, and within a few minutes something interesting is happening.

THE BODY

Stelarc: I think that the body is obsolete. But that doesn't mean that there is a repulsion from the body. All I think is that the body has created an environment of intense data, data that it is alien to our subjective experience. We have created an environment of precise, powerful, and speedy machines that often outperform the body. We've constructed computers that now can challenge and compete with chess grand champions. Technology speeds up the body, the body attains planetary escape velocity. The body finds itself in alien environments, in which it is biologically ill-equipped. For all of these reasons, the body is obsolete. Now, do we accept the evolutionary status quo? Do we accept the arbitrary design of the body? Or do we evaluate the design of the body, and come up with strategy of reconstructing, redesigning, rewiring the body? For example, can the body have a wired internal surveillance system? Can the body have an augmented sensory experience? These are two aspects that would have profound impact on both our perception of the world and on the medical well-being of our bodies.

Victoria Vesna: ...I could see us uploading information into the internet and having agents doing work, freeing us from necessarily being with the computer. I actually think a lot of this machine–human interface is very primitive first steps of understanding how the technology will become part of our lives. It could also be a way to reaffirm our physical body.

TB: Yet one could understand your work BodiesINCorporated" as an affirmation of the things that are happening in biotechnology right now...

Vesna: Not really, because these are philosophical, psychological bodies designed to ask those questions you are posing. So it is not about us projecting us into this space somehow thinking that this is taking the place of our physical bodies. I have had people ask me that repeatedly, and I am always amazed. Does creating a body on the internet means that I don't exist here? No, I still have to go to the toilet. There is nothing virtual about that.

Eva Wohlgemuth: I also have the desire to upload myself and dissolve into cyberspace, but in the given situation I will work with the nonideal body and try to make something out of it. For me it is the possibility to use its weaknesses and imperfections to find different images for what is going on around me.

HARDWARE AND SOFTWARE

Jodi: [We are angry—TB] because of the seriousness of technology. It is obvious that our work fights against high tech. We also battle with the computer on a graphical level. The computer presents itself as a desktop, with a

trash can on the right and pull down menus and all the system icons. We explore the computer from inside, and mirror this on the net.

Matthew Fuller (I/O/D): They [off-the-shelf software products—TB] work fine in some ways, but only because users have been normalized by the software to work in that way. There are other potential ways to use software out there, that seem to have been blocked off by the dominance of the Windowsmetaphor, the page-metaphor, and other ways of interfacing with computers that have become common. We believe that GUI is suffering from a conceptual Millennium Bug.. I think the "Web Stalker" realizes the potentials of the net better. It strengthens the range of mutation, the street knowledge of the net. Normal browsers deal with a website as a determinate amount of data. What we do is an opening up of the web to a representation of infinity. I guess that this is the core mathematical difference between the Web Stalker and browsers: between presenting a fixed amount of data and an infinite amount of data. What we want to say is that the web consists of a potentially infinite amount of data. What normal browsers do is close it down, that's why they are easy to use.

Paul Garrin: I am opposed to the concept of "Domains" as such. In the term "domain" is the military heritage of the internet: "Domain," that means "Domination," control, territories—this thinking comes straight from the Pentagon. And that's the way some people look at it: they think that these names are their property, like a piece of real estate that they bought. And all of a sudden the word "earth" belongs to a company!

Bunting: I was trying to find a way to cut down on junkmail to my email account, and I came up with this concept of an algorithmic identity. I change my address now every month in a way that is very easily predictable to humans, but not to a computer. I chose the date, the month, and the year, something most Western humans would know. So my email address currently is jun97@irrational.org. Every month the previous address will be deleted, and if you send mail to this address, you get an autoreply saying: "This identity is now expired, please reformat in this form." Since I've done that my email has gone from fifty a day to just about five. I don't get any stupid messages anymore.

Julianne Pierce (VNS Matrix): I think that technology is part of the structures of power that have been developed by the patriarchy. But now is the first time that women are able to participate in developing an industry or a discourse. Women never really had a part in how the industrial age developed for example. In the information society, they can play a really strong role in developing the future. So it's really important for women to get into the roots of technology and work their way up. If we want a society that really represents men's and women's views, women have to be at the top of that ladder. The internet and technology in general has been developed by men as a means of warfare, industry, and commerce. We're interested in having a discourse on the different areas of technology, be it the internet, be it multimedia. What particularly interests me is the how the information age

changes our society and our culture. That for me is a really important issue of being involved with as well as using these technologies.

TB: Would you say that computers or the internet are gender-neutral?

Pierce: No, I think it's part of a system. I don't want to call this patriarchy, but the basic fact is that men control this whole information industry. Bill Gates is one of the most powerful people on earth, and there are generally men who are controlling the development of the industry. There aren't many women in those positions of power that actually influence the flow of technology. Maybe the computer and the internet as such are a neutral space, but there are certainly gender issues, that are relevant to that space. The presence of women as subjects of technology and users of technology is really important. There are really didactic arguments about how the hardware, the screen and the keyboard, favors the masculine, but I don't agree with that. There *are* women who contributed to the design of all this.

Marko Peljhan: I think there is not enough knowledge in society about technology and telecommunications. People tend to mystify it a lot, but when you really start working with it, it is just a tool like any other. I think that creative people who work creatively in this field have to develop specific technical skills, and you have really know how you are using them and why. When I started working with satellites, I realized that it was all military technology. That is a very important moment to reflect upon, this military provenance of almost everything that we use.

NET-SPECIFIC ART

Robert Adrian X: I wanted to create networks, and in these networks things can happen. I am interested in the strategic part of it, not in the content. I am curious to see what happens once this space for art is created. Making pictures is not what it's about. It is about finding ways of living with these systems, to look at how culture is changing in these systems.

Vuk Cosic: I did a lot of HTML documents that crashed your browsers. I noticed that there was a mistake somewhere in my programming. And than I asked myself: Is this a minus or a plus? So then I was looking how to get to that. It was not enough just to avoid this mistake, I was trying to really understand that particular mistake, with frames, or with GIFs that used to crash old browsers, or later JavaScript, that does beautiful things to your computer in general.

Olia Lialina: The web makes it possible to experiment with linear, parallel, and associative montage. With "My Boyfriend came back from the War" one can influence the narration. It is some kind of interactive montage. But the possibilities that the user has are limited, because he doesn't know what happens when he clicks on a certain field. But this work is more about love and loneliness than about technology.

Alexei Shulgin: If you deal with technology-based arts, the very first years are always the most exciting ones. Look at photography: When they invented the 35mm camera there was this explosion of art photography in the late Twenties and early thirties. Artists just did whatever they wanted with photography. They didn't worry how it would fit into the art system. They experimented with the medium, and they got really great results. It was the same with video. Video art of today is not interesting for me at all. Artists now use it as a new tool for self-expression. But I don't believe in self-expression.

TB: Why?

Shulgin: There is too much information already. I don't need more. But when this medium video appeared, it was really interesting what artists did with it. Same with the net: we are in the early stage of it now, and people are just drawn to it by enthusiasm.

INTERACTIVITY

Jodi: People sometimes send us helpful code. For example, somebody sent us a Java applet that we actually used for our site. We are really grateful for that. Some people really encourage us, too. They say: "Go, Jodi, go. Make more chaos. Make my computer crash more often."

Debra Solomon: I don't think that computer games are very interactive. *This* conversation is interactive, because we both can influence just about everything that goes on in it. That's how the interaction will be [at the net art project the_living—TB] between the_living and her audience/participants, when I'm on this trip. For example, I have an itinerary already, but should a participant know of some place or individual that would really add to the narrative or create a visually exciting atmosphere, I would be happy to change my route.

Alexei Shulgin: I don't believe in interactivity, because I think interactivity is a very simple and obvious way to manipulate people. Because what happens with so-called interactive art is that if an artist proposes an interactive piece of art, they always declare: "Oh, it's very democratic! Participate! Create your own world! Click on this button, and you are as much the author of the piece as I am." But it is never true. There is always the author with his name and his career behind it, and he just seduces people to click buttons in his own name. With my piece "form art," I encourage people to add to it. But I am honest. I'm not saying: Send it in, and I will sign it. I will organize a competition with a money prize, like a thousand dollars. I think that will stimulate people to contribute. I really want to make this an equal exchange. They work for me, and I give them money. I think, it is much more fair than what many of these so-called interactive artists do.

THE ART SYSTEM

Robert Adrian X: From the very beginning the problem has existed of identifying and defining the "work" and the "artist" in collaborative or distributed network projects. The older traditions of art production, promotion

and marketing did not apply, and artists, art historians, curators and the art establishment, trained to operate with these traditions found it very difficult to recognize these projects as being art. Net art challenges the concept of artmaking as a more or less solitary and product-producing activity.

Wolfgang Staehle: The issue of "institutional critique" was interesting to me, but I thought it was absurd to formulate a critique of the institutions of the art system within its institutions. That was just like re-arranging the furniture. I thought that this wasn't consequential. That's why I tried to really do something outside the institutions. I think, The Thing [the art-oriented BBS that Staehle ran in the early nineties—TB] worked so well, because the traditional art world didn't take any notice at all. The thrill was that you could feel like a gang of conspirators.

Olia Lialina: I, personally, never said in any interview or presentation that internet is my long awaited freedom from the art institutions. I never was connected to art system. I was not an artist before I became a net artist. Maybe that's why I—from the very beginning—concentrated on other things: internet language, structures, metaphors and so on. But at the same time the idea that net art must be free from real-world art institutions is very dear to me, because in their order of values net art is just one of computer arts. But I don't think that the right way to demonstrate freedom is to travel from one media event to another with presentations of independence. It's better to develop an independent system... For me to give up my freedom would be to stand on how a lot of critics, artist, and activists earn money and make a career with everyday statements that net art has no monetary value. Its not funny anymore. Article after article, conference after conference they want to convince me that what I'm doing costs nothing. Why should I agree?

MONEY

Robert Adrian X: There was no way to make money out if it, and there still isn't. You support the communications side of your work with money from elsewhere. I sold artworks and used the money to support the communications stuff. There was nobody from the big art centers like New York or London or Paris or Cologne involved. The people who participated in these projects needed the communication, because they lived in Vancouver or Sydney or Vienna or San Francisco.

Jodi: [For the participation in Documenta X—TB] we got a fee for the expenses we have when we put our files on their server. In total we got twelve hundred deutschmarks. It is a clear example of exploitation. Which artist would move his ass for this amount of money? But net art is a victim of its B-status. It is treated as group phenomenon, as a technically defined new art form. That is something that we have to leave behind as soon as possible, because that is the standard way to do these things: a group creates a hype. They call it mail art or video art, and it's doomed to die after five years. I think we are looking for another way, because we are not typical artists and

we also won't play the role of the net artists forever.

Heath Bunting: At least half of my projects could be turned into a business. I did begging on the net for one week, and got sent fifteen hundred pounds. I made a form where you can send MasterCard or Visa donations to myself, and then I inserted it into corporation's or government guestbooks over the period of a week. A lot of people found it entertaining, and sent me money. But I didn't actually cash that money. It's not so interesting for me to do business. I assume that most of the credit card information that was send to me was from stolen credit cards anyway...

I get paid for giving talks. At the moment it is very boring for me to have an apartment. So for me this is a way to travel around without having to sleep outside all the time. I haven't had an apartment since September, I have been traveling continuously since last June. And I enjoy doing it, it's very challenging. The internet is a technology that makes that possible. Maybe ten or twenty years ago, there would have been a different way of networking. Maybe a hundred years ago, it would have been a name. If I was a certain type of aristocrat, I could have turned up in a court in India in rags, and I would have just said my password, and I would have been admitted and treated very well. In those days it was your name. There are other passwords now, that give you access to certain things. The funding models change. In the postmodern funding model, everything is small and connected in terms of business. Forty years ago it was different: with the modernist funding method, everything was big and disconnected. And that would have made it very difficult for me to travel around.

BORDERS

Guillermo Gomez-Peña: Basically we want to bring a Chicano–Mexican sensibility to cyberspace. We see ourselves as web-backs. That's a pun on wetback, which is derogatory term for Mexicans. We see ourselves as kind of immigrants in cyberspace. We also see ourselves as coyotes, as smugglers of ideas, because we do believe that there is a border control in cyberspace and that the internet is a somewhat culturally, socially, racially specific space.

Roberto Sifuentes: This is important, because when we started this project, the internet was seen as sort of the last frontier, the final refuge where issues about race relations don't have to be discussed, where race doesn't matter—as a strategy of avoidance. So it was important for us to venture out into the internet, and when we first "arrive there," we started getting responses back like: "There goes the virtual barrio, there goes the neighborhood. The Mexicans have arrived." Literally, people send us mails like that.

Alexei Shulgin: I feel much more included than before [the internet—TB]. When I was just an artist living in Moscow, whatever I did has always been labeled as "Eastern," "Russian," whatever. All my work was placed in this context. That was really bad to me, because I never felt that I did something specifically Russian.

BUT IS IT ART?

Alexei Shulgin: ...What we have now is that there is no critical context. Art always takes place in some physical place, in a museum or whatever. Even when it's a performance, it takes place in a space that is marked as an art place. Even if it is not an art place, it is appropriated by artists and therefore becomes an art place. With the net, you don't have this physical space. Everything happens on your computer screen, and it doesn't matter where the signal comes from. That's why there is a lot of misunderstanding. People are getting lost, because they don't know how to deal with the data they are getting. Is it art, or isn't it? They want to know the context because they don't believe their own eyes.

Robert Adrian X: The term "artists" has to be defined much more broadly in this context. You have to include so-called hackers in this definition for instance, because they are operating creatively with these systems.

Vuk Cosic: I think that every new medium is only a materialization of previous generations' dreams. This sounds like a conspiracy theory now, but if you look at many conceptual tools, that were invented by Marcel Duchamp or by Joseph Beuys or the early conceptualists, they have become a normal everyday routine today with every email you send. With every time you open Netscape and press a random URL at Yahoo. Eighty years ago this action, which is now totally normal everyday life, would have been absolutely the most advanced art gesture imaginable, understandable only to Duchamp and his two best friends. This very idea to have randomness in whatever area, form, shape, would have been so bizarre in those days...

I will give a lecture in Finland in September in which I will argue that art was only a substitute for the internet. That is of course a joke. I know very few people who have so much esteem for what artists did in the past.

Marko Peljhan: I actually don't care much about this kind of designation. When I compare myself with some other people who are also "artists" I don't see much we have in common. So I just call my works, "progressive activities in time." I am actually interested in defining utopia, looking over the defined borders. That is the legitimization that an artist has: the right to be irresponsible sometimes.

Wolfgang Staehle: That's not of interest to me, that's up to the art historians to decide. I can't answer this question.

[Links to all the art projects mentioned can be found at http://ourworld#.compuserve.com/Homepages/Tilman_Baumgaertel/>.]

SUBJECTS: HACKERS ARE ARTISTS —AND SOME ARTISTS ARE HACKERS:

TILLA TELEMANN INTERVIEWS CORNELIA SOLLFRANK

DATE: TUE, 22 SEP 1998 16:16:51 +0200 FROM: CORNELIA@SNAFU.DE (CORNELIA SOLLFRANK)

Tilla Telemann: "Female Extension," your intervention of the net art competition "Extension," held by the Hamburg Galerie der Gegenwart (Gallery of the Present) aroused quite a bit of attention. What was the initial idea behind "Female Extension"?

Cornelia Sollfrank: Actually, I wanted to crash the competition. I wanted to disturb it in such a way that it would be impossible to carry it out as planned.

TT: Why?

CS: Because I thought it was silly that a museum would stage a net art competition. For me, net art has nothing to do with museums and galleries and their operations, their juries and prizes, because that goes against the nature of net art. Net art is simply on the net; so there's no reason for a museum or for a jury that decides what the best net art is.

TT: Do you still think that way?

CS: Basically, yes. But I'm afraid this development can't be stopped. Net art is on the verge of changing completely. It still happens on the net, but this need for completed, whole works that can be sold, that have a certain definable value, that can be attributed to an identifiable artist, and the establishment of authorities who do the evaluating and who deal in net art—we won't be able to ignore these developments. Net art will evolve in this direction, and away from what it was in the beginning.

TT: Where did the aggressive impulse to crash the competition come from?

CS: I simply am that destructive. I had the feeling that they didn't know what they were doing. They just wanted to profit from the hype surrounding net art without truly investing in it. That's what I wanted to shake up, and with this disturbance, call attention to the fact that it's not as simple as that. Net art is not just about cleanly polished websites; it might very well have something to do with mean, system-threatening actions of disturbance, too.

TT: The action was seen by many as a "hack"; *Die Woche*, a German newsweekly, even named you "Hacker of the Week." Do you see yourself as a hacker?

CS: No, I'm an artist. But if you take a closer look at the term "hack," you very quickly discover that hacking is an artistic way of dealing with a computer. So, actually, hackers are artists—and some artists also happen to be hackers.

TT: What does the term "hacking" mean for you?

CS: There's something called the *Hacker Jargon Dictionary* which is an attempt to define that term, among others. For me, an important parallel between hacking and art is that both are playful, purpose-free ways of dealing with a particular thing. It's not a matter of purposefully approaching something, but rather, of trying things out and playing with them without a useful result necessarily coming of it.

TT: Many spectacular hacks result in the destruction of computers, or at least a crash. With this in mind, do you see a parallel between your destructive impulse and hacking?

CS: Hacking does not mean first and foremost destroying. Today computer hackers place the greatest value on the fact that they're well-behaved boys who simply like to play around and discover the weakest points of systems without really wanting to break anything. At the same time, hackers can induce unimaginable damages. But at the moment, it's really about the playful desire to prove to the big software companies just how bad their programs actually are. At least they're trying to push their image more in this direction. Regarding my own action, it does have more to do with disturbance than destruction. I couldn't actually destroy "Extension" any more than I could inflict any serious damages to the Galerie der Gegenwart, but I was nevertheless able to toss a bit of sand into the works. Everything did not actually fall apart, but a few people did have to spend a considerable amount of time looking at a lot of trash/garbage...and so on. This did disturb the trouble-free course of the competition.

TT: Another aspect of hacking is that it does seem to attract people who enjoy the intellectual challenge of creatively working around limits.

CS: Yes, hacking does have to do with limitations, but even more with norms. That's another parallel with art. The material that art works with are the things that constantly surround us. The only thing art actually does is break the patterns and habits of perception. Art should break open the categories and systems we use in order to get through life along as straight a line as possible. Everyone has these patterns and systems in his or her head. Then along comes art: what we're used to is disturbed, and we're taken by surprise. New and unusual patterns of perception offer up the same things in a completely new context. In this way, thought systems are called into question. And only the people looking for this are the ones who are interested in art at all.

TT: Would you say that there are as many well-defined conventions involved

in an art competition as there are in computer programs and that you have subverted these conventions with your action?

CS: Yes, that, too. The material I'm working with in regard to "Female Extension" is, on the one hand, the internet, but also the traditional means of art distribution: the museum, the competition, the jury, the prize.

TT: If you wanted to disturb the competition, why didn't you hack the server the art projects were stored on and erase everything? Or disturb the awards ceremony, for example?

CS: That's "electronic civil disobedience." In a way, I did my demonstrating on the net because it had a greater effect. My action wasn't truly destructive. I didn't break anything; on the contrary, I was actually very productive. Instead of destroying data and information, I used automatic production to see to it that there was more data so that the works sent in would be harder to find.

TT: Isn't it something of an affirmation of a system when someone tries to get into the system, whether it be a computer system in the case of the hacker or a competition in the case of an artist? Wouldn't it be more consistent to do the disturbing from the outside?

CS: No, you can disturb far more effectively from the inside than from the outside. Producing a flow of data has a considerably greater effect than standing out in front of the museum with a sign reading, "Down with Extension."

TT: One thing hackers emphasize again and again is that besides influencing social developments which only an elite group can follow anyway, access to sensitive information is really at the core of what they're up to. Is that also somewhat related to what you're doing?

CS: It has less to do with the information itself and much more to do with just how open systems are. The information itself is constantly changing. There's always new information. Much more important are the hierarchies of systems, what's accessible to whom. Hierarchies are established with passwords and codes and so on. These have to be broken by hackers again and again. Because of this, hierarchies have to be restructured over and over, and vertically structured systems are rebuilt horizontally. This is also the decisive difference between the distribution of art and net art. Art distribution is a hierarchical system, so it's vertically structured. I can't just hang my art work in a museum. But I can go to the net and "hang up" my website, for example.

TT: Of course, that's precisely what so many artists found so interesting about the internet in the beginning. But in the meantime, it's even the people who deal with it professionally can't keep an overview of everything that's going on in the field of net art because there's so much of it. A paradoxical situation has developed: Precisely because "everyone is an artist" on the

internet, it's especially important that net artists establish some sort of relationship with art institutions in order to gather some sort of recognition...

CS: The only function of an art museum I can accept on the net is that of establishing a context. Which means that I don't just put my website out there where no one can find it, but rather, I place it within a certain context, for example, an art server. Presuming that it's a website at all, because besides the world wide web, there are many other services and levels on the net where art can take place. But the art server shouldn't be an art institution with a curator.

TT: In a way, an art server is the internet's equivalent for a producer's gallery. That is, there are artists who run a server themselves and fill it up with their own oeuvre. This is fine for the artist, but it may well not be of any general interest to anyone else. And that's what curators are for: To be a "gatekeeper" that only allows net art through which will have a certain value for the general public and not just for the artist who made it. In my opinion, this filter function is extremely important for the art public...

CS: Of course there are people who need this filter function because they don't have the time or the desire to look around for themselves. But with regard to "Extension," for example, there was nothing there that interested me. One should always be aware of just how elitist and questionable the choices made by a museum actually are.

TT: There is the historical example of video, where the processes of canonization and the induction into museums took place, processes that are probably on the verge of occurring with net art. What's actually so bad about the fact that museums are dealing with net art and trying to evaluate the various works? After all, that's the job of an art museum, to contribute toward the creation of context and the formulation of a canon.

CS: The motto for the museum is: Collect, protect, research. A museum that seeks to deal seriously with net art would have to collect net art and seriously consider all the consequences of just how this art form is to be preserved and researched.

TT: Aren't you contradicting yourself? On the one hand, you're saying that net art only takes place on the net and that's where it should stay and the museums should leave it well enough alone, and yet, on the other hand, you're saying that museums should be collecting net art...

CS: If a museum were to seriously take on the challenge of collecting net art, I could accept that. But I doubt that that's what they actually have in mind. And what happened at the Galerie der Gegenwart is a prime example. They simply wanted to quickly swim alongside the net.art hype, to sample a bit of the cream topping on all things cyber and net. But they've shown that they had absolutely no idea what that would actually mean in that ever since the competition, there have been no more efforts in this

direction whatsoever. Since the awards ceremony in September 1997, the website hasn't been updated.

But if competent people were to work with a significant museum on the idea of seriously collecting net art, I'd approve. It'd be an incredible challenge, because not only would the collection of works and the formulation of theory be involved, but also a tremendous amount of hardware and software would be necessary in order to be able to read the data according to technical standards that go out of date within the shortest periods of time. So technical specialists who could handle the inevitable repairs and maintenance would also be necessary. But the museums are hesitant when faced with such a huge task. Such a collection would have to have a very broad range and gather as much material as possible, which would also necessarily mean that a certain evaluation and hierarchy of the individual tasks would have to be created.

TT: What you accomplished with your action is that the Galerie der Gegenwart won't be dealing with net art at all anymore. Would you consider this a success?

CS: The idea of starting a collection of net art with "Extension" was put into cold storage, in a way. Now they've offered Stelarc a residency. This compromise, that is, working with a single artist whose work is quickly comprehensible, is much more consistent, I think. With Stelarc, in terms of content, they are venturing out onto a new terrain, but it's still nevertheless compatible with a museum.

TT: Your "Female Extension" reminds me of the contextual art or the institutional critique of the early nineties. In the art world at the time, there was also this idea of focusing on and calling into question the conventions, the mechanisms of the creation of norms and canons. These were questions that only interested those who had anything to do with art. Could it be said that your work was essentially aimed strictly at the jury?

CS: The jury was, of course, most immediately effected, although the members didn't realize at all that "Female Extension" had anything to do with art—all the better. As for how much other people, for example, the artists participating in "Extension," were effected by my action, I don't know. But I got a lot of feedback from people who weren't directly involved and for whom I drew attention to an important problem, namely, the attempt to make net art museum-ready. Many net artists don't know themselves just how they should react to this and careen back and forth between the underground and the professional world. I don't have this problem because my work was the attack on the structure of the museum itself.

SUBJECT: THREE INTERVIEWS WITH BRIAN SPRINGER (CRITICAL ART ENSEMBLE, JÁNOS SUGÁR, GEERT LOVINK)

FROM: PIT SCHULTZ <PIT@ICF.DE> DATE: MON, 12 OCT 1998 13:36:58 -0400

CAE INTERVIEW WITH BRIAN SPRINGER (OCTOBER 1989)

Colonel Noonan is a pseudonym he used for his pirate persona. The name came as play on the name of cable television pirate Captain Midnight (a disgruntled HBO employee who captured an HBO relay station in 1988, and uplinked some very unflattering text about the cable giant).

CAE: Col. Noonan, could you tell us how you got interested in satellite technology and guerrilla action using this technology?

CN: I became interested in satellite technology when I heard about these things called "backhauls," which allow you to see TV personalities off camera. There are two ways a backhaul can work. One is when they cut to commercial on your broadcast station—meanwhile your satellite station is not running the commercial. The commercial is being inserted at headquarters, so on satellite, you still see the person on camera waiting to go back on the air again. Another variety of backhaul is one common to newscasts and TV magazines, such as on CNN. In this case a raw signal (a signal containing only the image of the host or newscaster) is sent up to a satellite and then downlinked to a station that will insert the graphic or tape material necessary for a completely packaged show. But if you tune into the backhaul, you can see the person without the graphics, or see them when the insert tape is being rolled. This has always interested me, because you can see how the TV spectacle is constructed.

CAE: Where did you get your equipment to do this, and what was the cost?

CN: In 1978 a home satellite system would have cost about US\$120,000—150,000, because when the signal comes down from the satellite it is so weak that it demands extreme amplification. At that time, the amplifiers US\$80,000—100,00, with only twenty to thirty being made a year. Home technology became possible when the amp could be made very cheaply. By 1989 several generations of equipment have been released to the public. The early equipment, from about 1978—82, can be found on the back shelves of dish dealers' shops, and can be gotten very cheaply since it lacks many of what are now considered standard features. The amp can now be bought used for sixty dollars.

CAE: Is this the setup you use?

CN: Yes, pretty much so. The dish I use was originally made for telephone microwave from point to point on land. It's called a landline microwave; it uses the same frequency as satellite microwave. My mount is made out of an old bedframe and casters.

CAE: You can use these to get backhauls?

CN: Yes; just take your dish and go through every satellite. Spend a day. There is no [public] schedule for backhauls, so you have to do your own research to find out when the ones you're interested in come up.

CAE: What kind of commentary have you heard?

CN: One time on *The MacNeil–Lehrer Report*, Walter Mondale was on and he was painfully bored. He was watching the show on a monitor and they had just reported that Lloyd Bentsen's father had died. With that Mondale broke up laughing and said that Bentsen had always claimed that his father was the worst driver in the world, and now he's the worst dead driver in the world. He also found the Wedtech scandal to be hilarious. Backhauls allow you to get a glimpse of politicians' private persona, in a way that their public relations people can't control.

CAE: Can you also pick up news camera feeds, if there is footage online from China or Central America?

CN: Yeah. Live transmissions are good. I got one from CNN where a reporter was at this huge fire, and she is quite upset because she can't get the ash that was floating in the air off her teeth. So she spent most of the feed trying to keep her teeth white. Another thing you get is bulk tape source material before it's edited. I got a feed of a massacre in San Salvador. It was five minutes of corpses and the town's reaction. It's nice because you can see the event without it being contextualized by graphics and voiceover. It's unfiltered news.

CAE: Is it illegal to tap satellite feeds and backhauls?

CN: I wouldn't think so. It's on the public airwaves. You buy a consumer dish, turn it on, and there it is. Nothing is scrambled, no special equipment is needed. It's public information.

CAE: It would only be in distribution that you could get into a legal gray area.

CN: It would seem so, because you're hurting the public persona of the TV personality, such as with some footage I have of Robert Tilden. On camera he's praying intensely for people, and as soon as he is off the air he breaks into a totally different personality. He wants to know how much money is coming in, he's yelling at his studio people. I'm sure it would upset him, because it shows what a hypocrite he is.

SMILE, YOU ARE ON TWENTY-FOUR-HOUR CCTV

(From an Interview with Brian Springer by János Sugár [December 1995])

JS: How many other people are able to also use this? Is there a community that is working with this use of satellite dishes, catching images from the air?

BS: It's fairly dispersed. When I was doing it I didn't know of anyone else who was necessarily doing it. But on the internet there are some forums for dish heads. A number of individuals have multiple dish systems that receive this type of programming. It does not require a special decoder; it's not encrypted; it's available to anyone with a home satellite dish system; and there are over three and a half million home dish-owners in the U.S., so it's potentially available to that large of an audience. The channels are usually hidden in noise that is there on a satellite with not much activity and where there's usually static and for maybe a few hours a day this link occurs where you can see this programming. Most people will not hunt through this noise and when they do find something they're not going to watch it because it's very boring. The project was sort of a surveillance project and required several thousand hours of viewing. In 1992, I spent about two thousand hours watching the links of the networks, watching the links created by the candidates. Much of the time during those links nothing happens. You might have Bill Clinton sitting in a chair and he might ask someone to come over and he'll whisper in their ear, "We need to do our laundry. How can we do our laundry? My shirt smells." So it was very mundane, it was kind of a stakeout trying to catch those moments that represented wanting to use TV to not communicate. That's what I was looking for.

JS: Do you think that this informal side of television could have an influence on the medium of TV?

BS: I think it gets down to an issue of an investigation and that usually requires the revealing of secrets of what your investigating. It could become fashionable to be off-camera. This could become just another technique where being off-camera just becomes another stage to perform on, and I think the question is: "How can one investigate to reveal something that is hidden and something that is hidden can only be found where the person hiding the thing thinks there is no access?" If they become really aware that there is access, then it becomes just another stage of performance but it's interesting.

JS: Are any other media using this, like tabloids and private TV channels or not?

BS: Yes, I think there is sort of a paparazzi interest and voyeurism in this, and I'm not aware of any programs that are using it. In that way humiliation always sells well, so seeing someone humiliated by having makeup put on or kind of embarrassing themselves is always appealing to the baser instincts of TV. I think one thing that was interesting after the election was that there was

an article that reported that the Clinton White House was monitoring the satellite TV feeds through the Department of Defense. They were able to intercept and downlink network news stories or the satellite feed of the new story before it was broadcast in Clinton's first days in office. This was a technique that had started during the campaign when the Clinton campaign had intercepted the satellite feeds of George Bush so they would get George Bush's commercial before it had aired and then they would have a potential to create a response to the commercial before it had been on broadcast television. There's also an interesting episode in the tape where a technician is talking to Al Gore's wife Tipper Gore and the technician explains to Tipper that they use the satellite feeds to examine the crowds as almost a form of crowd control, so the Clinton campaign would watch the satellite feed of a Clinton rally and the camera would pan the audience as almost like a surveillance camera and they would be able to identify people who might be protesters or people who might want to disrupt the image in some way and then the people watching the satellite feed would call the rally and tell them, "See that guy there, edge him out of the frame" or "Move him out."

INTERVIEW WITH BRIAN SPRINGER (OCTOBER 1989)

CAE: Moving in the other direction, are there ways that the consumer can send out signals that would disrupt or jam satellite communications?

CN: It's impossible to override a transmission with your own picture using consumer equipment, but it is easy to disrupt a transmission with noise and snow. The best noise generator that a consumer owns is a microwave oven. A microwave has 600 watts of power; it works at a frequency that is below satellite, but on the other hand it uses a microwave generator that produces a tremendous amount of noise and is very unstable; it doesn't keep on its center frequency. Using a properly sized dish and the inside of a microwave properly aligned, you could cause disruption to TV signals in the form of snow, a rolling picture, or skewed audio. It wouldn't totally disrupt the signal, but it would cause objectionable interference [a term used by HBO to refer to the drop in audio and picture quality that occurs when an alien signal gets into one-sixtieth of their power range]. However, since it works on a wide range of frequencies, you would also disrupt other satellite communications, like military or weather signals.

CAE: Have you experimented with this technique?

CN: Only on a theoretical level, and on a physical level of seeing how hard it would be to get the microwave generating device mounted, and that's easy. But I have never turned it on.

CAE: Are there other methods in the realm of possibility?

CN: Sure; marine radar on boats, or the market for used radar equipment, would be good places to get equipment for such a project. Such equipment would take some technical expertise to use.

CAE: Is the information available for someone willing to research these techniques?

CN: In a way. You have to put two and two together. The information about objectionable interference, how to create it, and the equipment it takes to do it is not public information. I did find some information, but the person who published it no longer lives in the U.S. He is under threat from the National Security Agency and HBO. He can't come back into the U.S. His name is Bob Coop, Jr. See what you can find on him.

CAE: Did he write for magazines?

CN: Yeah, but just freelance. There is a book called *The Hidden Signals of Satellite Television*, an excellent book by Tom Herrington and Bob Coop. It tells you how to tie into telephone satellites, audio subcarriers, and business communications.

CAE: Once again we are in extremely illegal territory—you could create enough disruption that there would be motivation for various security agencies to come after you.

CN: Sure.

CAE: How traceable is jamming?

CN: You would want to jam 6 gigahertz—the same frequency that the telephone company uses. So if you are in the pathway of one of these landlined microwave transmissions, and they could synchronize the satellite jam with the landline signal, they would have an approximate geographic location with which they could locate the origin of the jam. Or if you were in the flight path of an airport, that would be a second way. But it would be like finding a needle in a haystack from a hardware standpoint.

CAE: So in order to reduce the chances of tracing, and so as not to jam signals that you wouldn't want to jam, such as medical communications, you would want to go to an outlying area.

CN: That would be good. If you had a clear radius of around a hundred miles. Research the area through the FCC and you could find a clear grid.

THE DOCUMENTA X PROJECT —MARKO PELJHAN/PROJEKT ATOL

FROM: GEERT LOVINK <GEERT@XS4ALL.NL> DATE:FRI, 25 JULY, 1997 17:01:36 +0200 (MET DST)

Makrolab is a research station up on the Lutterberg, ten kilometers from Kassel. It is an autonomous solar- and wind-powered communication and survival tent, full of equipment. One night I went there to find out about the first results of the project.

GL: Could you explain us what kind of interception equipment you have here?

MP: You must have special decoding software to work with shortwave digital transmissions and different modulations. All that you hear now is different kind of HF modems or encoders. Teleprinters that use different standards. A lot of it is encrypted and there are specific NATO and Russian systems with specific baud rates that are almost impossible to decode. It is not like weather services or stuff like that, it's much more complex and hidden and there's no readily available information on it. When you hear and identify a baud rate of 81 or 73 or 96 p.e., than it is probably some NATO transmission and you know that you cannot get the message. But there's other systems that are very easily decodable or even voice services that are usually not scrambled. What we hear now is p.e. information about the weather over the Atlantic, the Shannon volmet for the air traffic flying toward Europe. On another channel we hear Stockholm Aero, and HF aeronautical station for transatlantic and transpolar routes. What we can decode quite easily is the SELCAL signals transmitted by aircraft, together with their position, wind, temperature, and fuel status. With the shortwave setup we have it is of course also possible to transmit, and every night I try to talk with some stations, yesterday it was Estonia and Belarus. In the past two days it was Mir packet radio time, three times a day and more. We try to get the Mir signals when it over flies Europe. As you know Mir was in trouble, but now they repaired their electricity circuit, and today they were resting, communicating with radio amateurs of the world.

BS: On the other machine we are receiving signals in the L-Band around 1.5 gigahertz. It is a communications receiver. It could be use for mobile phones, but they are mostly regionally located. We were specially interested in crossing boarders and boundaries. Across five countries or more, like INMARSAT, which is a satellite telephone system, briefcase size. Maybe you saw Peter Arnett using this during the Gulf War, speaking to CNN. There are still vestiges of the INMARSAT system that are analog-based, which do not require any special digital decompression. So here in Germany you could be listening to America, Ireland, or Tehran. This is where communications start to get interesting, where the medium does what it does best, which is communicate.

Segun pur teorial resone es ya inter katolikisme e protestantisme ke exista li grand skisme in li kristanaro. In li dogmati opiniones fundamental li diferos es extremim poki inter li katolikisme e li ortodoxia. Les [they] relate primim li doktrine pri purgatorie e li famosi "filioque"-tum es li interesanti kontroverso pri ob li sankti spirite emana anke fro li filio o fro li patro solim. Ma, sat stranji, studio del eklesial historie revela ke non es li dogma ma li traditione kel krea heresianes. Inter li kristanismen praktikal praktiso in lun (its) luterani e in lun katoliki forme exista nul difero. Por ambes ortodoxia kontrastim representa sin irgi duto absolutim stranjeri religione. Li westeuropani kristanisme es super omnum eti [ethical], rationalisti e intelektual. Li antiqui filosofia, li medieval skolastike, li renesanshumanisme, li reformatione e li jesuital etike ha stampa li kristanisme, chake segun sen manere. Segun ke on aksepta li europani kulture e li europani etike, on mus pro tum anke aksepta li kristanisme. Kultivat e eti pagane in li moderni europa es pur paradoxe. Por tu es pagane, on mus retrovada en [into] la barbarstadietum es en ti kulture, kel existad in europa ante li introduktione del kristanisme. In li ortodoxi kristanisme non exista dis probleme. Li ortodoxia have nuli filosofial o intelektual traditione, nuli reformatores e nul etikal teoriistes. Lu have dogma e ritu, incense e ikones, ma lu non determina li homesen pensado e non kontakta kun lesen intelektual kulture. Ke dis primitiv kristanisme povud transforma li marxisti materialisme en aminim partim idealisti idee, es pro tum absolutim nonpensabli. Ma sembla kontrastim ke li rusi marxisme in manere sat komodi e simpli pove nihilisa desagreabli konkurante. Un tre primitiv idealisti idee bli suplanta da altri tali mem plu primitiv materialisti. Disum es li uni latere del traditionen metamorfose, kel li rusi bolshevisme representa. In nusen tempe rusia es separat fro li ceteri europa per abisme [abyss], kel es plu profundi kam irgitem antee. Rusia e westeuropa es du diferanti mondes, keles sempre plu isola es fro mutu. Rusia ha turna li dorse a europa e separa se resolutim e konsciosim fro irgi "infektione" de europani kulture. Plusum ve seku. [Humanzsuk@ultra.com, Rusian Kombato Kontre Europa, Tue, 25 Aug 1998 10:18:35 -0500 (CDT)]

And where culture does what it does worst, which is communicate. We are investigating if the collision of these best and worst characteristics can create a interesting stage for intervening in the transnational flow of information.

MP: What makes this set of radio amateur gear perhaps specific is the context in which we are operating. The result is only becoming visible only after quite a long period of time and a period of reflection. We have just started.

GL: Could you compare the work with video feed with your current research on the audio spectrum?

MP: In Europe there are less feeds. What you get is pretaped material that is sent to different broadcasters. I have been working with shortwave for a long time, since the early eighties. Shortwave is the cheapest and most accessible way of communicating over long distances and still widely used. I think that almost everyone has the experience of suddenly hearing a female voice giving out four-letter codes for five hours on their own AM radio receiver. We listen to those here too and try to make some sense and basically map them. There is information available on the internet about the frequencies secret services use, but things are changing quickly in that world. And basically all posted data is already old data. Audio and data traffic on SW is still not so accessible, compared to video, where you just hook your TV up to a satellite receiver and a dish and there you go.

GL: Brian, you experienced the closing of the open video channels. Most of it is now encrypted. This is also happening in the audio spectrum. Do you see the same patterns occurring there?

BS: The open windows are slowly closing. It is a unique opportunity to have one last glimpse at the curve of the analog spectrum before it closes forever. Analogue seems to be more natural, curved, not binary, with less protection for the information contained on these channels.

GL: So we have to move than and crack the digital spectrum.

MP: The big game is to move forward to digital domains. A complete set of new knowledge is needed. We heard rumors that digital communications, for example banking information, were cracked. That is illegal and basically a criminal offense, but it tells a lot about the safety of our own data being transmitted and retransmitted over the networks. The encryption that is currently used by states in diplomacy is very hard to decrypt. You must have the key, that's it. Intelligence services are working more on getting the keys than decrypting. The human is the weak element of the chain, not the signal anymore.

[See http://markolab.ljudmila.org.]

SUBJECT: TEN REASONS WHY THE ART WORLD LOVES DIGITAL ART

FROM: MATTHEW FULLER <MATT@AXIA.DEMON.CO.UK>DATE: MON, 12 OCT 1998 01:16:59 +0100

- 1. We live in an era when the dominant mode of politics is systems analysis. Power has been given over to a series of badly animated white-shirt technicians who deliver fault reports and problem fixes that can be answered only with an "OK." All the control and trustworthiness of Norton Utilities is claimed for a bunch of frightened useless pilots gibbering out of control at the keyboard of a system they no longer understand. In this context it is essential for artists and others to synthesize an unformattable world.
- 2. The art world loves digital art because—like itself—there is a large submerged part of it that is invisible to the viewing public and only ever read by interpretative machines. Digital art is an autonomous field with its own opportunities, norms, and institutions. It understands that the distinction between the fields is necessary in order to maintain the integrity and thoroughness of both fields. For all artists it is imperative that they maintain the field in which they work as an autonomous sphere. The strength of a specific field can be measured precisely by the degree to which participants recognize the contributions of their peers and therefore develop each others richness in specific capital. The collapse of discipline can be measured precisely by the degree to which heterogeneous elements are able to exert force within or upon it.
- 3. Jeff Koons recently described the patterns produced in the interrelations of basic, repeated units, motifs, forms, colors, in his sculptures constructed of variegated patterns of boxed basketballs as a basic form of artificial intelligence. Mainstream art has already begun to incorporate the terminology and methodologies of digital cultures as a way of talking about itself and finding sympathetic refrains within a wider culture.
- 4. The art world loves digital art because it reminds the art world of the limits of its knowledge and the wisdom to be found in the open, nonprejudicial contemplation of the unknown. Likewise it is always useful to have a relatively large amount of the unknown to call upon in the event of a vague legitimation crisis. In the past it has been proven good insurance to have a few unknown things knocking about in the rear. Graffiti, macrame, female artists, and other minor genres have all played their part in the past.
- 5. Large prestigious art museums with marble foyers love web-based art because it implicitly solves some of the problems of distribution for non-gallery-oriented work that were faced comparably by video art. Because the

web guarantees at least some kind of circulation, this frees them from the embarrassment of undergoing the rituals they are forced to undergo on behalf of artists thoughtless enough to produce painting, sculpture, or installation. Given the medium's self-sufficiency, widely promoted, attentively curated exhibitions with all their background maneuvering, public attention, critical discussion, historicization machinery, high artists fees, and other negative influences on the pure essence of artistic creation can all be avoided, leaving

the work to be safely ignored.

For similar reasons, those who are interested in reading Marx without illusions believe that the *Fragment on Machines* in the *Grundrisse* has important implications for technology and art. Here, Marx suggests that what he terms "general intelligence"—the general social knowledge or collective intelligence of a society in a given historical period, particularly that embodied in "intelligent" machines—reaches a decisive point of contradiction when actual value is created more on the basis of the knowledge and procedures embedded into these machines than in simple human labor: thus freeing digital artists from having to exist. Or at least freeing them from being any less cheap and infinitely reproducible than their work or their equipment.

- 6. The art world loves digital art because someone other than Royal Society of Portrait Painters has to take the conventions of pictorial representation into the future. While virtual worlds might still be to the mid-nineties what Roger Dean album covers were to the mid-seventies, the onward march of technology will one day surely permit an upgrade-obedient artist to produce a final form of perfection: an utter conformity to perceptual mechanisms whose perspectival instructions permit viewing only by the most perfected of subjects. At this sublime moment being empties in entirety onto a computer and thus perhaps allows isolation on a hard drive to be stored or destroyed.
- 7. The artist waits in ambush for the unique moments when an unrecognizable world reveals itself to them. They pounce on these little grains of nothingness like a beast of prey. It is the moment of full awakening, of union and of absorption and it can never be forced. The artist never formulates a plan. Instead they balance and weigh opposing forces, flexions, marks, events, distribute them in a sort of heavenly layout, always with plenty of space between, always alternating between the heat of integration and the coolness of critical distance, always with the certitude that there is no end, only worlds within worlds ad infinitum, and that wherever one left off, one had created a world.

The sublimation of technique to the advantage of a separate category known as creation is consistent between all sections of art. Programmers, technicians and other people are glad to work hard to make the realization of the vision of the artist possible. *Providing* such freedom for the artist is essential because in this way providence always takes victory over ego.

8. Because art that is not solely about content, but that is multiply reflexive, concerned with materials, that is about the lusters and qualities of light, about the tonality of certain gestures, about modes and theaters of enunci-

ation refuses to make a strict separation between creation and technique. Concept and execution fold in and out of each other, blurring the categorical imperatives of rule by the head or by the dead. The most powerful art, digital art, art that is despite itself digital is, regardless of the context that codes it and from which it escapes, derived in this way precisely from hooking into an expanded compositional synthesis.

9. A multitude of currents of heterogeneity destabilize digital art's status as an autonomous field. Most banally this occurs in the production of art that takes the needs of sponsors so to heart that it is indissociable from them. Heterogeneity can also disrupt the autonomy of a field, and thus its internal self-evolving richness, when it comes in the form of interpretation: in lazy journalistic work whose primary concern is the humorous gratification of what it presumes are its audiences' prejudices; in works that are diagrammatically preformatted by pre-existing critical criteria; or—most importantly—in works whose relationship with certain flows of words amplifies both.

10. Both fields, art and digital art, attempt to control what art and artists (and by implication those people or practices defined as being outside those terms), should do and what they should be called. This is simply as a necessity for their maintenance and development. At the same time, even their own historical emergence is or was dependent on the eventual impossibility of such control. Those moments at which that impossibility is made concrete are what produce artists worthy of the name, as well as those to whom the word means nothing. Paradoxically, this very impossibility is what art and digital art claim as grounding their ability to speak, to be paid attention. It is only when they lividly and completely fail to betray that claim that art becomes worthy of anything but indifference.

SUBJECT: NEW MEDIA, OLD TECHNOLOGY

FROM: DR. FUTURE <RICHARD@DIG-LGU.DEMON.CO.UK> (BY WAY OF RICHARD WRIGHT) DATE: SUN, 14 JUN 1998 21:42:38 +0100

I am attending a smart cheese and wine party hosted by the Arts Council and one of their corporate sponsors when it is announced that the director of a well-known North American art center is present and is looking for new proposals for their artists fellowship program. I have an idea that could do with some "institutional support," so I decide to forego the race for the volau-vent and cross the room to introduce myself. I begin to explain my exciting new method of image synthesis but do not get very far before she makes her position clear. "Is your project internet-based?" she inquires. "No..." "Is it multimedia?" "Err...no..." "Well those are the only projects we do now." In the corner of my eye I can see someone skewering the last savory parcel. In 1995 the grand daddy of electronic arts prizes, the Prix Ars Electronica, decided to drop its computergraphik still-image category after suggestions in previous jury statements of a "tiredness of creativity" and speculations on whether this form had "outlived itself." That year it was duly replaced by the new world wide web category. In addition, the computer animation section became increasingly dominated by special-effects feature films selected by a jury made up largely of members of commercial production companies. Amidst timid jury statements questioning the wisdom of having to compare half a dozen Hollywood films made by Industrial Light and Magic with a short sequence made by a lone artist working out of their bedroom, Prix Ars reinforced the feeling that artists had gradually abandoned "older" forms of "new" media for the safety of emerging "cutting-edge" technologies before they too are "professionalized."

The ISEA '98 revolution symposium distinctly positioned itself at the fore-front of radical arts practice, brazenly featuring this quote on its call for proposals—"the opposition of writer and artist is one of the forces that can usefully contribute to the discrediting and overthrow of regimes that are destroying, along with the right of the proletariat to aspire to a better world, every sentiment of nobility and even of human dignity." Against this heady rhetoric, the invitation for exhibition proposals to ISEA '98 contained no mention of either still image work nor film and video art in its list of entry formats, presumably relegating such outdated forms to an earlier era of "prerevolutionary" practice.

So we are left to infer, perhaps, that a new medium can only sustain a period of true artistic innovation and challenge for a limited time before it is exhausted of radical ideas and has to leave center stage. The new incarnation of progressive arts practice then rises into the sky on the wings of blue-

sky research labs while its decaying predecessors have their bones picked clean of creative meat by the vultures of venture capitalism. Film art begat video art begat computer art begat interactivity begat the web. This cycle of birth and death has now assumed a familiar logic—artists need not worry as the routes of access to media production are closed off by the mainstream commissioning policies of the commercial industry. They need only wait for the next wave of media to appear and then to seize that window of critical intervention to undermine capitalist social relations before the corporations know what's hit them. The only article of faith that this requires is that technological progress march inexorably onward, generating the raw material that can be used to subvert its own previously recuperated incarnations. Political innovation requires technical innovation.

The theoretical justification for this attitude is given in terms of art as a "transformative practice" or aiming at a "functional transformation." It is a direct reference to Walter Benjamin's famous materialist theory of revolutionary art practice. This is expressed most concisely in his "The Author as Producer" lecture of 1934, in which he formulates it in terms of a distinction between an art work that supplies a social production apparatus and an art work that tries to a change a social production apparatus. What this means in effect is that it is not enough for, let's say, a writer to criticize the capitalist system in words if he or she continues to use a capitalist form of cultural production to publish those words. Benjamin warns that bourgeois culture is very capable of absorbing all kinds of revolutionary ideas without at any time allowing those ideas to threaten its power. Instead of publishing political arguments in the usual academic form of books and scholarly articles, the socialist writer should use new forms that change the writer's production relations, especially their relation with their audience, the proletariat. The newspaper, pamphlet, poster, or radio broadcast were the most appropriate media in Benjamin's time because they could be used to reach a mass audience and avoid patterns of traditional cultural consumption that were rooted in class structure. What matters most in the political effectiveness of an art work is not the "tendency" of its content but the effect on production relations of its "technique."

In contemporary times this translates into an oppositional arts practice that uses the most advanced materials of its time to demonstrate in a concrete way the direction in which society should be progressing. It challenges currently accepted notions of production, authorship, and creativity by using new media to show how electronic distribution changes exhibition, interactivity changes authorship, sampling changes creativity. Technology is shown to possess the power to restructure these production relations and alter what people had previously taken for granted. And whenever production relations threaten to ossify into restrictive ideologies as newspapers are merged by press barons and radio airwaves are regulated then they can be blasted apart again by the socializing potential of each further technical development that can be applied to the mass media. All of which is fine, except for the fact that this is not entirely what Benjamin meant.

Later on in his lecture, Benjamin goes on to discuss some explicit examples of the effects of "technical innovation" on the political function of culture.

He use quotes from Eisler to show that concert-hall music has entered a crisis caused by the advent of recording technologies, which change the relation between performer and audience. But we are told that this is not sufficient by itself to transform music into a politically potent form—the addition of other elements like words is also necessary to help overcome the breaking-down of culture into isolated specializations that occurs under capitalism. And this eventually leads it to the form that Benjamin's finds most exemplary—Brecht's Epic Theater.

What is technically innovative about Brecht's theater? It is not cinema, is is not radio, it is not mass media. But it does change the relationship with its audience, not by using film or broadcasting technology directly, but by adopting their "techniques." The principle technique is montage, the ability of modern media to fragment perception and then recombine it. In Brecht's theater this is absorbed in the form of "interruptions" to the dramatic action in order to create "conditions" presented to the spectator that require a "dialectical" response. In this way montage is employed as an "organizing function" as opposed to a "modish technique" used merely to stimulate the viewer's fascination. So we see that the actual works that Benjamin is interested in use new techniques at a variety of levels which can include different media, perceptual modes, "organizing functions" and aesthetic considerations. Contrary to using the latest technological means, Brecht is described instead of returning to the ancient origins of theater, turning the stage into a simple podium for exposing present behavior and conditions. New technique does not mean new technology.

Today we see digital artists driven onward to become multimedia artists to become net artists and in their wake they leave a trail of unresolved experiments and restagings, unable to develop an idea through before the next software upgrade is announced. As if "earlier" forms of new media had been "outlived," no longer able to express the forms of subjectivity that are now experienced. But by picking up any magazine or observing any street advert we can clearly see that on the contrary commercial design and photography has continued to exploit and push the still-image form way past the stage where many artists abandoned it in their move on to more "revolutionary" media. Through this work we can still see the potential of continuing advances in the standard commercial digital software packages like Photoshop, which has unfortunately now taken on the status of an office desktop accessory with many artists. The artists that have continued to work in areas that are almost unfunded have shown how much further image and print media can go in producing their own newspapers, fly posters, fax art, graffiti and underground cinema and in experimenting with alternative methods of distribution.

Similarly in moving image production, developments in digital image synthesis are amongst the most advanced technical accomplishments in the world today, but are only ever seen as "special effects" in feature films or promos, a "modish" or stylistic use of the medium as the new-as-always-thesame. It seems almost an accepted fact that the sophisticated logics created to structure image events such as dynamic simulation or motion capture can only ever be used for blowing up space ships or for the latest shoot-em-up

computer game. It is as though they are perceived as so closely aligned with the interests of Soho art directors that they can never be quite new enough to escape from its orbit. Instead it appears far easier for arts organizations to develop schemes to support work made for a particular piece of hardware or software they have just seen on *Tomorrow's World* than to look one layer below the surface to ask what techniques, like montage in the thirties, are likely to have an impact on the function of many forms of practice. For it is surely the case that technical and aesthetic developments in the basic manipulation of sound and image are applicable to a wide range of media generally. Arts centers fall over themselves to attract work designed for the latest internet software, VR environment, or multimedia platform but are not willing to consider projects in image- or sound-making that could radically alter the possibilities of all three.

There is an argument to the effect that by being involved in the early stages of a new medium that artists can exert some influence over the direction in which it develops. By getting in first before mainstream genre forms have had the time to become entrenched it could be possible to indicate alternative patterns, but it is still very difficult for artists to work as maverick researchers against a corporation's ultimate agenda. This approach also implies that media will inevitably develop into a single optimum commercial form without any further hope of an intervention, a kind of commercial determinism. In fact, the computer industry seems to be distinguished for its continuing volatility just when everyone thinks the dust has settled.

I am reminded of a story related by Graham Weinbren, the artist who pioneered the use of interactive cinema in the late eighties. He and his brother had developed a system that allowed for real-time transitions between different story streams and was demonstrating one of his first pieces to an audience of industry professionals. They were duly impressed by the speed and fluidity of the system and wanted to know the technical specifications. However, when Weinbren revealed that it was based on an old 386 PC, a machine already obsolete even in those days, their interest immediately cooled. The problem was that the logic of the commercial industry demanded that new products were always premised on the notion that they embodied nothing but the latest in technology and manufacturing. To revert back to a previous "generation" of machines would have introduced an uncomfortable contradiction into that philosophy. Unfortunately, this is also a philosophy that has now been taken on by arts organizations that feel that here is an easy way to align themselves with progressive media simply by pointing to new black boxes.

So artists find themselves running to keep still, trying to keep at bay the panic that they will be left behind in the latest high-tech funding opportunities and consigned to the back room of old media. Condemned to chase a never-ending succession of software versions and hardware upgrades, their practice is now so "transformative" that it never gets past the round of demos and beta tests. By becoming fixated on the receding horizon of technological developments the space for consolidating what has been learned is lost. The avant-garde artist trying to lever an oppositional advantage at the fringes of advanced materials is replaced by the techno artist-entrepreneur providing

research and development services for corporate sponsors. There is no reason to develop an idea beyond the point at which it can be sold.

During the seventies and most of the eighties, artists who wanted to use computers were obliged always to be working at the frontiers of technology because there was practically no where else to be. Computing machinery was so limited that in a real sense the machine was the artwork because you would always be using it at the very extremes of its abilities. Such was the desire to escape these restrictions that faster and bigger architectures were eagerly sought after and resulted in the feeling that to produce the best art you needed the best computers. Nowadays, this principle clearly sounds erroneous, partly due to the fact that desktop computers are so powerful that the "best" in computing is accessible to the point of being unavoidable. But it has been surreptitiously replaced by a "softer" version that implies that to work in the newest media you need the newest technology.

The effect is to divert attention from innovations in currently used media by implying that artists can only retain their radical credentials by concentrating on the "cutting edge" of new technology. And, surprise, surprise, it is exactly this mythic trajectory of technology that commercial companies depend on to motivate the consumption of their endless releases of new products that allow you do the same thing more often. Both are now united in their quest for a Killer Art for the Killer App.

SUBJECT: HEATH BUNTING: WIRED OR TIRED?

FROM: ANONYMOUS (SIGNING AS "TIMOTHY DRUCKREY <DRUCKREY@INTERPORT.NET>")
DATE: SUN, 21 DEC 1997 20:33:23 +0100

In the December issue of *Wired* magazine we find amidst the pre-Christmas consumer spectacle of seductive scanners, professional sports watches, expensive liquors and, scantily clad savvy female computer nerds, a seductive spectacle of another shape. The current offering is a glossy close-up of the smirking bearded face of Heath Bunting, net.artist from London, and one of the founders of the international net.art movement.

Bunting is best known amongst the digirati for his intended subversive actions and attacks on corporate and consumer culture. Attacking professionalism of all kinds, he was quickly scooped up by the very professional Catherine David for 1997's Documenta X, the prestigious international art exhibition in Kassel, Germany. In a manner astonishingly akin to Documenta X, with its redundant revisits to seventies conceptual art, Bunting's naive stance revealed his ignorance of hard lessons learned twenty years ago by less inexcusably innocent precursors. Had he been paying attention, he could have learned sooner that there is

no outside in corporate consumer culture or more importantly, that "outside" is just another target market. Well this December, dec97@irational.org has apparently learned with a vengeance; He has recently accepted a paid position as Senior Computer Artist at the Banff Centre, in Canada. The logical next step, geographically and ideologically, will be senior computer consultant at Microsoft

From the pages of *Wired* we gaze at Bunting's face, a tastefully consumable icon floating against a white background. As Artist of the Hour, he appears ironic, cool, and rebellious, gazing at the reader knowingly, eyes narrowed, lips pursed—as if to suggest that his subversion could somehow transcend the lifestyles magazine he is now decorating. But what exactly is being subverted, or more precisely, what are we being sold?

In *Wired*, the hot new item of consumption these days is the subversive artist. *Hot Wired* and *Wired* have taken on the badly needed position in the U.S. as patrons of the digital arts. They have been more friendly and inviting to digital arts than the art world ever has been. In *ArtForum*, for example, as the token digital critic I am occasionally offered a column, always already scripted within the margins, of the magazine and of the art world. There has been much theorizing of the relationship of the margins to the center particularly from the net as a marginal, suburban strip mall, in relation to the art world's urban center marketplace. Yet much of this theorizing comes from a passive relationship to the digital media upon which the theorists and artists are commenting. This was not the case previously with Bunting, although with this latest transgression, or rather absorption, we see how quickly one can be seduced to the sell out. Demo or die!

Wired, unscrupulous entrepreneurs that they are, have taken to heart their forefather lessons, Phillip Morris and Saatchi and Saatchi, to name only two of the most licentious. They fully understand just how useful a public relations device the arts can be.

Bunting, "Sage of Subversion," we are instructed with no apparent tongue in cheek, is "fucking with commodities." Easier said than done, coming from a magazine that has already taken home the prize for glorifying the wild wild west of free-market computer economics. Cool and radical in its approach to consumption, why not invite Bunting to play act two to patron saint Marshall McLuhan: another clever Commonwealth citizen with a palpable soundbite? No less ludicrous is the additional label *Wired* ascribes to Bunting, "Michelangelo of the Digital age." In an age of postmechanical simulation, the notion of the hand in art is no longer nostalgic, it is positively reactionary. To proclaim the possibility of a masterly mark of the digital age is a suggestion seeping with egotism and nostalgia for masterpieces whose poverty have been unmasked ever since that fateful day in 1917 when the patron saint of contemporary art signed a mass-produced urinal.

The cultural loop—from subversion to assimilation to absorption—revisits net art quicker, smoother and more quietly than ever before. The ride begins with net production and distribution and ends as hard-copy pages spouting computer consumption and techno-utopianism. Bunting becomes a complicit pawn in *Wired* magazine's naughty boy game of—ever so gently—slapping the hand that feeds it.

And finally we must ask the sad but obvious question. What is Bunting subverting? The answer is perhaps the greatest irony of all. He is, we are informed by *Wired*, "wreaking havoc on corporate Web sites" and "overturning capitalistic ideals." Anyone searching for Adidas and Nike is given a pointer to the competitors site. So in essence, Buntings "subversion" is to participate in free market economics, in ending monopolies and giving business to the competitors. Capitalism 101 anyone? Cheques for tuition may be sent via http://www.irational.org/skint>.

SUBJECT: FAST, CHEAP AND, OUT OF CONTROL

FROM: TIMOTHY DRUCKREY < DRUCKREY@INTERPORT.NET > DATE: TUE, 29 SEP 1998 19:20:58 -0400

"External progress; internal regression. External rationalism; internal irrationality. In this impersonal and overdisciplined machine civilization, so proud of its objectivity, spontaneity too often takes the form of criminal acts, and creativeness finds its main outlet in destruction." —Lewis Mumford

Evoking the pivotal essay by Hans Magnus Enzensberger, "The Aporias of the Avant-Garde," seems necessary in a time compulsively destabilized by its woeful lack of interest in critical history and its dubious fascination with cynical history. It explains why pleonasm and redundancy haunts too much of an emerging and seemingly rootless artistic generation weaned on glib "negative dialectics," virtual "one-dimensionality," and hip cybertechnics. Unwilling, or unable, to invoke sublation within the politics of representation as an act of differentiation, the lure of "the culture of the copy" (to use Hillel Schwartz's phrase) seems to hook its adherents into hustled solipsism and faint theory. Unwitting casualties of the de-ethical surfaces of the present, they inevitably skid into cultural memory erased as rapidly as the refresh rate of their screens or the release of their "send" keys. Aporia, though, isn't just a signifier of implausible or reactionary dialectical unresolvability, but one of permanent contradiction negating the reciprocity uselessly delimiting decidability (no less creativity). In this regard, Enzensberger's essay is clear: "The argument between the partisans of the old and those of the new is unendurable, not so much because it drags on endlessly, unresolved and irresoluble, but because its schema itself is worthless...The choice it invites is not only banal, it is a priori factitious." Yet a facetious discourse persists in the guise of faux subversion, indifferent mischief, opportunistic fraud, deconstituted history, or irresponsible defamation perpetrated through vain electronic deconstructions of identity "theorized" in nonsensical notions of schizophrenaesthetics more deluded than deleuezian, more subjectivized by pathologies of smug hubris than by ingenious

sabotage. To this end, the "avant-garde," as Enzensberger observed, "must content itself with obliterating its own products."

And even if, as is obvious, the notion of the "avant-garde" is only summarily relevant to issues of electronic media, it does evoke a set of historical issues about artistic production, its presumptions and the long-discredited bourgeois tendency to tolerate adversaries in the service of the culture industries. It's surely evident that there is a stark difference between "necessary ferment" and critical practice. This issue is well approached in Paul Mann's book, *The Theory-Death of the Avant-Garde*, and has been exposed over and over again by the trendy retailing of subversion. Mann writes:

There has never been a project for delegitimating cultural practice that did not turn immediately, or sooner, into a means of legitimation. The widely disseminated awareness of this unlimited legitimacy has eroded the ruse of opposition. The death of the avant-garde might thus be the most visible symptom of a certain disease of the dialectic, a general delegitimation of delegitimation. One might call it a crisis were it not for the fact that it announces an end to crisis theories of art. The crisis-urgency of the avant-garde repeated itself so often, with such intensity and so little in the way of actual cataclysm, that it wore itself out. We are now inured to the rhetoric and market-display of crises.

Even though the seventies, eighties, and nineties have demonstrated persuasively that the commodification, deconstruction, and engineering of dissent are not disassociated from the marketplace of ideas, the persistence of a futile, and perhaps complicit, neo-avant-garde suggests that the lessons of art-world theory and economy haven't really been learned as they spill into electronic media in increasingly tidal waves.

Indeed, the politics of subversion as intervention and the aesthetics of promotion share a fuzzy border that is crossed more frequently than admitted. Indeed one might suggest that an aesthetic of subversion shadowed modernity's hopeless fascination with avant-gardism and now has been transmogrified into a game of ego fulfillment played out in the spectacle of fictionalized, illusory, purloined, or cyberized identities, a kind of triumph of "The Data Dandy" whose presence was articulated in the Adilkno essay:

The data dandy surfaces in the vacuum of politics which was left behind once the oppositional culture neutralized itself in a dialectical synthesis with the system. There he reveals himself as a lovable as well as false opponent, to the great rage of politicians, who consider their young pragmatic dandyism as a publicity tool and not necessarily as a personal goal. They vent their rage on the journalists, experts, and personalities who make up the chance cast on the studio floor, where who controls the direction is the only topic of conversation... The dandy measures the beauty of his virtual appearance by the moral indignation and laughter of the plugged-in civilians. It is a natural character of the parlor aristocrat to enjoy the shock of the artificial.

Related issues have emerged in the writings of The Critical Art Ensemble (particularly *The Electronic Disturbance*). Unhinging the fictions of authority,

they write cogently about rupturing the "essentialist doctrine" of the text while their interventions (some might say performances) into the sacrosanct territories of authority represent a provocation directed at both the worn traditions of public sphere cultural politics and a reckoning with the accelerating implications of technologies for a generation inebriated with virtualization. But to the point of reactionary or regressive trends they write:

Cultural workers have recently become increasingly attracted to technology as a means to examine the symbolic order... It is not simply because much of the work tends to have a "gee whiz" element to it, reducing it to a product demonstration offering technology as an end in itself; nor is it because technology is often used primarily as a design accessory to postmodern fashion, for these uses that are expected... Rather, an absence is most acutely felt when the technology is used for an intelligent purpose. Electronic technology has not attracted resistant cultural workers to other times zones, situations, or even bunkers used to express the same narratives and questions typically examined in activist art.

The spheres of activism are driven not by insidious ingenuity but by clearly delineated opposition. Nor are they sustained by incognito egos cloaked behind imperious and ambiguous intentionality. Activism, in short, is concerned with visibility and not subterfuge. This lesson hardly seems understood by wanna-be hackers whose trail might prove untraceable but who, nevertheless, (and in utter disregard of hacker integrity) leave forged evidence to certify or publicize their intrusions. Less politics than gloating narcissism, this behavior seems all too symptomatic of the roguish (is that voguish?) appeal of the rakish criminality in *Natural Born Killers, Trainspotting, Gangsta Rap*, or perhaps the ultimately pathetic imperatives revealed in *Fast, Cheap and Out of Control*.

It is difficult too to ignore Peter Sloterdijk's irksome, but in this case useful, positioning in the Critique of Cynical Reason. In the introduction, Andreas Huyssen poses a series of questions emerging in Sloterdijk's brooding work: "What forces do we have at hand against the power of instrumental reason and against the cynical reasoning of institutional power?... How can we reframe the problems of ideology critique and subjectivity, falling neither for the armored ego of Kant's epistemological subject nor for the schizosubjectivity without identity, the free flow of libidinal energies proposed by Deleuze and Guattari? How can historical memory help us resist the spread of cynical amnesia that generates the simulacrum of postmodern culture?" But Sloterdijk's argument is far more pertinent: "Cynicism is enlightened false consciousness. It is that modernized, unhappy consciousness, on which enlightenment has labored both successfully and unsuccessfully. It has learned its lessons in enlightenment, but it has not, and probably was not able to, put them into practice. Well-off and miserable at the same time, this consciousness no longer feels affected by any critique of ideology; its falseness is already buffered." "Cynicism," he says in the chapter titled "In Search of Lost Cheekiness," prickles beneath the monotony."

While itself invoking an enlightenment ethic, Sloterdijk's paean to moralities and tradition nevertheless stands as a form of diagnosis of the yet uncom-

fortable discourse of modern and postmodern positioning. Theorized in so many ways, the issues that seem most pertinent in the continuing (and now perhaps dated) opposition mostly concern a radically altered subject—one not merely at the reception end of authority. But the inverted hierarchy of subject/authority is erroneous. And with the intervention of electronic media (with, among so many other things, its reconceptualization of both subjectivity and identity), the issue has often lapsed into virtualized sociologies of sadly presumed notions of the self transgressed by "life on the screen." This, to use Huyssen's term "schizosubjectivity," lapses into reessentialized categories by failing to understand the difference between identity and subjectivity, no less between the self and its anecdotal other. This astonishing disassociation leads into the possibility of a fugitive digital ethics whose contemptuous naiveté seems more reckless than subversive, more pessimistic than productive.

But the oscillations between self and other also suggests the avoidance of consequential psychological issues deeply affected by the development of electronic technology and its history. It is here that the distinction between schizophrenia and "schizosubjectivity" can be considered in terms of behavior. While there is little doubt that the unified notion of subjectivity collapsed in the hierarchies of modernity. What emerged are fragmented identities not salvaged in political nationalism, muddy text-based otherness, or in the abandonment of subjectivity and the acceptance of questionable notions of agency and its relation to avatars. This sort of dopey refusal (perhaps sublimation), well articulated in Slavoj Zizek's recent writings (and particularly in the chapter "Cyberspace, or, The Unbearable Closure of Being," in the just published The Plague of Fantasies and in Enjoy Your Symptom), is articulated in fraudulent, deceptive, or preemptive strategies that only serve to further discredit the politics of the politics of subversion. "Insisting on a false mask," he writes, "brings us nearer to a true, authentic subjective position than throwing off the mask and displaying our 'true face'...(a) mask is never simply 'just a mask' since it determines the actual place we occupy in the intersubjective symbolic network. Wearing a mask actually makes us what we feign to be...the only authenticity at our disposal is that of impersonation, of 'taking our act' (posture) seriously." This fundamental position cannot be trivialized by phony realizations or outlaw aesthetics. Extended into the public sphere, there is nothing worse, or more revealing in cyberculture, than a hypocrite revolutionary whose relationship even with opposition has to be invented.

Brecht wrote a great deal about "refunctioning," shifting the authority of extant material to expose its ideologies. Surely this political mimicry, joined with the Benjamin's loftily ambiguous and hopelessly redemptive aesthetic, fits into the trajectory of art—from Dada to Pop to Postmodern—by rationalizing various forms of reproducibility, repetition and appropriation as legitimate approaches that were both reflexive and creative. But these strategies were rooted in a form of "critical" consumption that clumsily persists in electronic culture.

No doubt that these strategies have also mutated into the cut-and-paste techniques (no less the cut-and-paste identities) of far too many artists involved with media. Very few of these techniques are confrontations whose parodic

or satiric intent outdistances or demolishes its sources. Isn't the goal of parody sublation? But the weakness, and sad pervasiveness, of a cavalier position does little to suggest that the shift into fragile digital communication technologies raises the stakes of far more than such worn notions of creativity as will perpetuate themselves by evolving their own development. Nothing could be less interesting in a time of monolithic operating systems, algorithmic aesthetics, and the politics of virtualization than a shiftless, hollow, and finally selfish positioning of the artist as a hapless subversive or, worse, the subversive as a hapless artist. Indeed, the link between cultish anonymity and subversive presence strikes me as a pitiable attempt to sustain vaguely modernistic notions of subjectivity behind the electronic veil of deconstructed—or better destabilized—identity or perhaps, more pathetically, self-styled celebrity.

[This essay was first published on January 20, 1998, at *Reflex* http://#www.adaweb.com/context/reflex/.]

SUBJECT: CHEAP.ART

FROM: OLIA LIALINA <OLIALIA@CITYLINE.RU> DATE: MON, 19 JAN 1998 20:47:30 +0300

INTRODUCTION

Making "Agatha Appears" at Budapest C3, I recalled Metaforum III (Budapest, October, 1996). At that time I spoke of the internet being open for artistic self-expression, that the time had come to create net films, net stories and so on, to develop a net language instead of using the web simply as a broadcast channel. And, of course, the sale of "My Boyfriend Came Back from the War" to Telepolice On-Line.

What is happening now, more than a year later?

First: I still get messages saying: "Look at my new web movie." Following the link, I find Quicktime or Shockwave moving images whose only value is to prove that plug-ins become more and more perfect and bring us closer and closer to home cinema.

Second: Net art is still as cheap as a floppy. For me, the intercoupling of these things is obvious.

Another thing is quite clear. Questions of what net art is and "does it actually exist" appeared in 1996. Today, almost every article devoted to this subject still starts with the same sentences. They have become more ornamental than anything really looking for an answer. They are following a fashion, not real interest.

All media festivals, exhibitions and conferences are now well decorated too: there are net art sections on event sites, some net artists and some beautiful games with the term "net art" itself. They are attractive and not expensive at all.

It was a year of net art sales. And important to stress that artworks were much cheaper than ideas. Variations on the theme "net artists don't need institutions" or "net art can exist without galleries or curators" were mostly welcomed by real galleries and institutions.

What else? A year ago "net art" as Altavista understood it, was all these sites devoted to art (galleries of painters, photo artists...archives of film and video, museums representing their collections on the net). Now net art is supposed to be the same, plus net.art, that is to say: online galleries of offline stuff plus a small group of artists close to Nettime or Syndicate or 7-11 mailing lists, and to each other.

That's what one can see on the surface. What was going on inside? Nothing that could make feel that net artists existence means something in

the world they create.

A year ago it was so sweet to announce that art theory, the art system, art commerce—all these are relics of the real art world system, a heritage to forget, but in fact this statement only brought some variety to offline art institutions, not an alternative.

THEORY

Developing a theory of its own could enhance the value of net art. At the moment it is understood in the context of media art, of computer art, of video art, of contemporary art, but not in the context of the internet: its aesthetic, its structure, its culture. Works of net artists are not analysed in comparison with one another. We are always viewed from an external perspective, a perspective that tries to place native online art works in a chain of arts with a long offline history and theory. And this remains the interest: to place us, to phenomenalize us, in the social sense of the word. Definitely, you meet more interest to the phrase The *internet project* than to its inner being, to the fact of online collaboration of artists from different countries than to their actual work

Again and again: "What is net art?" instead of (for example): "Browser interface in the structure of net art" or "Downloading time as a means of expression in the works of Eastern European net artists" or "Frames and new windows in net narration" or "Different approaches to finding footage or servers" or "Domain names and 'under-construction' signs from 1995 to 1997."

With pleasure I'll take my words back if I'm wrong, and with great pleasure I'd participate in such researches as a critic.

In brief: With no theoretical support inside, net art meets only vulgar oneseason interest from the outside world. This wouldn't be a problem if it didn't make things cheaper and that in some months all innovative experiments, new art forms and language will be buried as a last-season fashion. And this will happen already internally. (Net art was born in the net and will definitely come back to die.)

SYSTEM

In fact, while I was thinking what to write about internet art structures, several net galleries appeared and some on-line festivals gave prizes to some artists. This looks like the birth of a new world; maybe it is and the time to

judge has not yet come, but it's not difficult to see destructive tendencies in these foundations. Online galleries and exhibitions are nothing more than lists, collections of links. On one hand, it fits the nature of many-to-many communication; the internet itself is also only a collection of a lot of computers, and it works. On the other hand, list by list compilation brings us to an archive situation, to the story about keeping and retrieving information. Online galleries only store facts and demonstrate that a phenomenon exists. They neither create a space, nor really serve it.

The same applies to festivals and competitions. Even if they are intelligently organised they are not events in net life. Mostly they are not events at all but just the easiest and trendiest way to save money given for media events by funds or whatever. Now that everybody knows the internet is our paradise on earth, the long-awaited world without borders, visas, flights, or hotels, it is the best way to make your event international.

From my point of view, the most perceptive and valuable creative structures around *are* net artists co-projects and curated initiatives. Or they *could be*, if they were not so closed and didn't provide an ironic distance to the idea of creating a system.

In fact every net artist or group in the process of creating a work builds their own (and at the same time common, for everybody) system of self-presentation and promotion, invents exhibiting spaces and events. After all, it is in the nature of net art to build the net. But again and again the worlds you create easily become an exhibiting object at media art venues. Something that could be invaluable tomorrow is sold for nothing today.

COMMERCE

It is not only a problem of misunderstanding and misapprehension: I was told by art-sale-experienced net artists that since web space is physically cheaper than canvas or videotape, and since webpages are something that every schoolgirl can make on her school computer, pieces created and stored in the net will be cheaper than whatever made with the aid of more complicated techniques and knowledge. Sounds logical. Logical yet, until net art is an export product, not a point of prestige in the system of internet values, not an item of commerce for those who invest money in the internet, for example.

Banks, big companies, or simply rich guys have always bought pieces of art for their collections or found it prestigious to sponsor artists. Now they or their younger brothers spend enough money (at least in Russia) to be well represented in the net. Why not harness their desires? Why not advise them to collect, to buy and help develop the art of the next century?

Details and demo next time.

It's not only about money. And generally, the question of being paid for net art is no different to the question of payment on the net. Publishers, companies, advertisers and everyone else in the world is scratching their heads about it. I talk about going further, exploring the net, not beeing prisoners of last year off line fashion. It's not really my dream, but I'd prefer if tomorrow new net artists would come and say: she made pieces good only for virtual offices, what we do is real net art, underground, new wave, what ever. Its bet-

ter than nobody will come (because where?) and only media critics will mention that once there was a period in media art, when some media artists experimented with computer nets.

SUBJECT: FLIGHT CAPITAL

DATE: WED, 19 AUG 1998 13:52:09 +0100 FROM: GASHGIRL <GASHGIRL@SYSX.APANA.ORG.AU>

CONNECTED

You yawn, rub your eyes, and officially wake up.

Swarm Spore Procurement Center, Endless Arsenal A sub-ground warren of war rooms, communication facilities and personnel quarters—an uneventful interpretation of a sixties vision of a germ-free adolescent future. An acrid pherenomal white noise of amyl, sweat and semen echoes through the refiltered air, although the corridors are free of zealous young gene carriers. You notice a door on the far western wall and approach it cautiously. A sign reads <code>stealth designs mentor/protg rec room.</code>

OPEN DOOR

Patriot Gains (Interference and Deception Unit) A spacious rest room comprising nine toilet cubicles, two standard sickbay bunks, four nonstandard bunks, three handbasins, a communal shower alcove with nine faucets, and two imposing vitrines containing questionably acquired Mayan artifacts. A doorway labeled "G8" stands to the right of the cubicles.

Contract Specialist J763-99-DY-S009 and RentBoy (he's finally legal!) are standing in front of the vitrines. RentBoy admires his reflection in the glass, tucking his street-wear camouflage net T-shirt into his too-tight regulation strides.

J763-99-DY-S009 growls, "The Infestation Teams are getting restless. They've had it with your sustainable pulsing bullshit, your Art of War drivel. I want that skanky little fucker brought into compliance *now*."

RentBoy ceases his preening, saying, "It was agreed to focus parametrically across various expandability issues to see how they affected the time required to expand our forces. The imperative was to check the first-order logic of our mobilization and reconstitution capabilities."

J763-99-DY-S009 yawns.

RentBoy states, "Employment of tactical decentralisation coupled with strategic assessment will generate an unsurpassed advantage across the full spectrum of conflict potentials, from high to low intensity situations, including the proliferation of networked nonaligned insurgency forces."

J763-99-DY-S009 appears slightly nonplussed. "And...?"

RentBoy continues, his eyes glazed over with either lust or early glaucoma. "And... the Warrior Preparedness Unit is seeking information to address the requirement for new delivery systems of precision-guided munitions based

on advanced designs for automated and infrastructure warfare."

J763-99-DY-S009 responds impatiently, "Yeah, yeah. Tell me something new." RentBoy drones, "It is imperative we equip ourselves to converge undetected upon an enemy, either through direct firepower, opportunistic maneuvers or psychological operations."

J763-99-DY-S009 shrugs her shoulders. "Like I really care. What's your actual point?"

RentBoy suddenly focuses his gaze on UB40-99-DY-S009, unzips his fly, reaches down deep and pulls out an impressively swollen prick.

"Let's see if our loser 'friend' can comply with *this* AP weapon," he murmurs, one hand squeezing his leaking knob, the other languorously rubbing his waxy balls.

J763-99-DY-S009 considers RentBoy's suggestion, running her fingers over his oozing cock, then shoving them down his throat.

"Copy that. Get jiggy wit it and requisition his sorry ass at 0600. Give me a damage report when you're done. In the meantime...I think you'll be interested in my latest procurement."

Clearly wanting to beat his meat rather than continue the discussion, RentBoy mutters with some difficulty, "Would that be that major snorefest tactical engagement simulation system instrumentation you've been waiting on?"

J763-99-DY-S009 shakes her head, sending a gentle flurry of protein deficiency dandruff onto her epaulettes.

"No way. I'm talking about something exponentially more useful than your average TacSim. Bug-free, fully functional in rugged terrain, Remote Area Mobility to die for, easily concealed, etc, etc. Basically more features than you can poke a joystick at," she replies, giving his dick a saucy slap.

J763-99-DY-S009 pushes RentBoy into the nearest cubicle and slams the door. You hear a slightly muffled order, perhaps the words "bend over, nigga," but you can't be sure. The responding groan, then a series of grunts segueing into gasps, is unambiguous.

Suddenly the stink of futility threatens to overwhelm you and you quickly leave by the "G8" door.

Disconnected

SUBJECT: ASS IN GEAR

FROM: JORDAN CRANDALL <XAF@INTERPORT.NET> DATE: SAT, 17 OCT 1998 17:05:02 -0400

As I went along the street where I live, I was suddenly gripped by a rhythm which took possession of me... It was as though someone were making use of my living-machine. Then another rhythm overtook and combined with the first, and certain strange transverse relations were set up between these two principles... They combined the movement of my walking legs and some kind of song I was murmuring or rather which was being murmured through me... —Paul Valéry

In America, we have a peculiar mode of rhythmic embodiment called the "power walk." Head held high, arms thrusting outward repeatedly in conjunction with the beat of the moving legs, hair and breasts abounce, one propels oneself along the street in jerky, fast-motion paces as in an old silent film. Going nowhere in particular, often sheathed in garish, logo-strewn activewear, one in/habits the gym—a fitness club no longer a place so much as a set of notions of what it means to be physically adequate in society. Unpack the prevailing notion of fitness [gasp] and there you have it, the body moving [gasp] in conjunction with the social and technical machine [gasp], according to formats of productivity, efficiency, and adequacy. What are the beats? To focus on visual codes is to miss them.

I want to consider "exercise" as a marker of rhythmic operations, in which the body is immersed as agent and incorporant, within general conditions of making processes, forms, circuits, and capacities adequate to emerging regimes of fitness. And lest one think that notions of fitness are not in keeping with the body's virtualization, and necessarily serve to privilege a singly corporealized entity, I would like to point out that in all cases of body-subject-interface encounters we are speaking of a newly mobilized body, and a subjectivity constituted within formats of movement, across hybrid transport-transmission landscapes. (Landscapes traversed in terms of the transfer of weight over land and the transmission of embodied presence through the network.) The body in motion, subject to notions of efficient and adequate movement, contours and sediments itself through circuits and cycles of repetition, in whatever degree of corporeality or virtuality. Even on the (arguably) fully physical side of the spectrum, the days when one's body is parked at the monitor are coming to an end, and emerging cultural practices would do well to take this mobilization into account. The formats and codes of the interface register and facilitate these cycles, and the movements and processes of embodiment to which they are attached.

The newly mobilized body, bedecked in gadgetry—portable arrays of devices, either visible externally or implanted internally. How sexy. Consider a simple, early gadget: the Walkman, with which one powerwalks. Sitting next to the early mainframe radio or phonograph, to what extent did one

forget about one's body, necessarily parked within range of the machine? The interface as it stands, as it makes one stand, as it arrests one and places one in a holding-pattern, always lays the seeds for mobilization. A preparatory state for new sites of embodiment, patterns of mobility, and formats of enunciation. It facilitates arrays of localizations that link together in new presences. A peculiar site of exercise, and not just in terms of the obvious hand—eye coordinations via the mouse, but in terms of the way its formats are internalized in larger patterns of movement. Here is where we can locate the emerging paradigm of the database, and consider its effects. But at the same time: the interface marks the site of the arrested body's integration into the machine, into machinic operations that have larger societal links and consequences—indeed, which rest upon entire social apparatuses of fitness, efficiency, adequacy.

Consider the finger-scanner, now available as an option on the purchase of a new computer-right on the keyboard, to the left of the shift key, or in some models, on the mouse itself. A new form of fingering! But even more: one agent of an entire emerging economy of authentication, based on the incorporation of biological patterns into virtualized constructs, formatted according to the emerging conventions of the database. The "fingered" body is represented, is seen, its movements recorded and internalized, through the mechanisms of the database. How do these formats augment traditional, cinematic norms of movement representation—that is, the set of conventions through which the world of movement has come to be known? For movement is no longer seen as much as processed—or rather, it is represented by way of its processing. On one hand, the format of the database floats above the cinematic image-field, combining with it to generate a new kind of moving image—or "machine-image." One can even revisit the history of the moving image in terms of movement processing: think of protopowerwalker Charlie Chaplin in these terms, especially in his struggles to keep up with the demands of the machine in *Modern Times*. And, again, one can think movement in terms of the immobilizations that it locates. After all, it was Serge Daney who reminded us that the set of movement-conventions that is cinema only took hold via the public's immobilization in theaters, arrested and held in thrall by the screen.

Such a public is today a tracked public. Harnessed to new technological assemblages and driven by processing imperatives, machine-images track movements *as* representation. Tracking is the way in which one sees and is seen by the image. Informed by the organizational paradigm of the database, tracking formats an "improved," more productive and efficient form of vision. It protects one—informationally and corporeally—from an "outside" unprocessed reality that is increasingly constituted as dangerous. Such a body, whether in flesh or networked mode, incorporates fitness as the erasure of any threat to efficient, fast, and reliable flows.

A movement constituted through patterns of repetition, enmeshed in circuits, harnessed to social and technical machines. What better way of envisioning the exercise video—One! Two! Three!—and the body-database? In either case, *counting* equals *accounting* for, and the body is formatted through arrays of variables and calculations. Movement configures as a kind of sta-

tistical articulation. Based on behavior and preference data, as tracked, abstracted, and aggregated in the database, X might, for example, show a 59.6 percent propensity to move toward Y. As individuals and groups are processed, the public configures as a calculus of manageable interests, opinions, patterns, and functions. This ever more precise and "protective" statistical ventriloquization—stretching over speech like a prophylactic or over pumped-up flesh like spandex—becomes an authentic voice of the people. A marker of speech and presence, a way in which the public is heard and made visible. The machine-image—the exercise-interface—is thus a politicized field of incorporation and identification, marking a network through which social identities and embodied forms are signaled and enacted.

In the face of this crisis in the visual, emerging sites of operation occur in the proliferating arrays of devices harnessed to machine-images the way that remote-control devices are attached to television screens. They are like "free weights"—three sets of eight reps <code>now!</code>—or the fitness calculators that interface body and machine and measure their compatibility, often resulting in the body's rates to be adjusted in accordance with prevailing fitness norms. Increasingly, such devices—in conjunction with their machine-images—serve as switch-points between interior and exterior rhythms, which they regulate and convey. The interface always points to such a device, as it traffics between motivations and mobilities. Through them, private and public realms, behaviors and built realities, exchange, encode, and format one another.

Movement is inextricably bound up in technological capacities and imperatives. Wherever there is a movement, there is a machine. Exercise always happens in symbiosis with the machine, according to rhythms that it incorporates and emits. You don't relate signs when you exercise, as you do when you read and your body just (apparently) sits there immobilized. You coordinate your rhythms and movements to those you hear, feel, or sense proprioceptively. The body configures as a locus of rhythmic operations, as an active process of incorporation and coordination with machines both technical and social. To think in terms of "coordinations," as much as in relations, is to begin to understand emerging potentials for interventions within the field of the interface—the machine for moving. A logistics lurks in the most basic of routines.