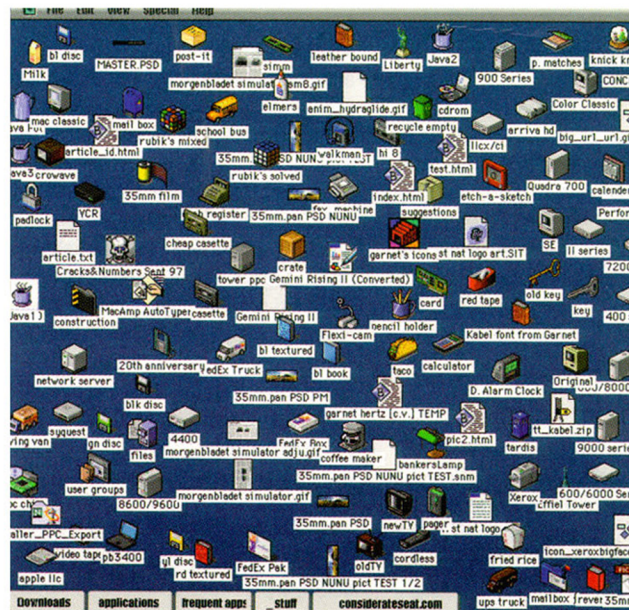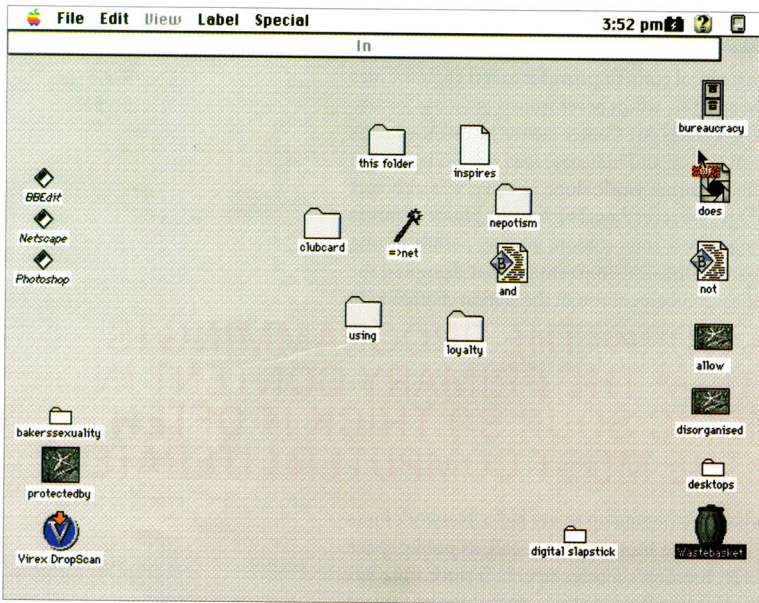RACHEL GREENE

Web Work
A HISTORY OF INTERNET ART

THE TERM "NET.ART" is less a coinage than an accident, the result of a software glitch that occurred in December 1995, when Slovenian artist Vuk Cosic opened an anonymous e-mail only to find it had been mangled in transmission. Amid a morass of alphanumeric gibberish, Cosic could make out just one legible term—"net.art"—which he began using to talk about online art and communications. Spreading like a virus among certain interconnected Internet communities, the term was quickly enlisted to describe a variety of everyday activities. Net.art stood for communications and graphics, e-mail, texts and images, referring to and merging into one another; it was artists, enthusiasts, and technoculture critics trading ideas, sustaining one another's interest through ongoing dialogue. Net.art meant online détournements, discourse instead of singular texts or images, defined more by links, e-mails, and exchanges than by any "optical" aesthetic. Whatever images of net.art projects grace these pages, beware that, seen out of their native HTML, out of their networked, social habitats, they are the net.art equivalents of animals in zoos.

From the very beginning, net.artists had grand ambitions. For much of net.art's brief history, its practitioners have been self-consciously staking out their collective goals and ideals, exploiting the characteristics peculiar to the Internet, like immediacy and immateriality. E-mail, the dominant mode of communication among and within net.art communities, enabled anyone who was wired to communicate on equal ground, across international boundaries, instantaneously, every day. This was of paramount importance to those talking about net.art in the mid- and late '90s. Building an equitable community in which art was conspicuously present in one's everyday activities was a collective goal.

In the years between 1994 and 1998, when many of the extant art-oriented communities formed, the Internet allowed net.artists to work and talk independently of any bureaucracy or art-world institution without being marginalized or deprived of community. The online atmosphere was lively and gregarious, and there was an eager audience for net.art, including the subscribers to mailing lists like Rhizome (www.rhizome.org), one of the first sites dedicated to new-media art; Syndicate (www.v2.nl/syndicate), a list focused on Eastern European politics and culture; and Nettime (www.nettime.org), a politically and theoretically oriented platform that has been important to many in the technoculture intelligentsia.

Not unlike the Surrealists and Situationists, net.artists had from the beginning a penchant for publishing manifestos and firing off polemics—which were often made available through publications such as Nettime's ZKP Series (www.nettime.org/pub.html) and Read_me (which refers to the instructions one consults after installing software); an anthology of writings posted on the latter site was published last year as *ReadMe! ASCII Culture and the Revenge of Knowledge.* Perhaps much of the energy being poured into art and communications was released by the broad political changes taking place in Europe in the mid-'90s, just as net.art was beginning to take shape.

While the Internet has recently become dominated by American corporations, Europe—especially Eastern Europe—and Russia were crucial to its early years as an artistic medium (just as the military and the academy were critical to its early years as a communications tool). The birth and development of "civil society" (read "post-Communist and neo-liberal") in Eastern Europe during the early and mid-'90s was characterized by media openness and pluralistic politics. During this period, for Eastern European artists and new-media types, the Internet had a utopian halo. George Soros's Open Society Institute and other NGOs had funded media centers—such as Ljudmila in Ljubljana, Slovenia, an Open Society initiative where Vuk Cosic still works—and software and computer education programs, making it relatively easy for motivated enthusiasts to participate in the brave new world of international communications. As Eastern European markets opened up to the West, media centers and the technology they espoused were often held up as proof positive of political and cultural reform and international collaboration.

In 1994, the Internet was still comparatively uncluttered. Populated largely by homepages flaunting hobbies and personal histories, advertising technology companies, or promoting online communities of all stripes, the Net was far removed from the asceticism of white-cube galleries or the high ironies of neo-Conceptualism. Indeed, the exhausted, commercially exploited art culture that had soared in the '80s and crashed in the early '90s was in recovery when the Internet began to take off. Very few people associated with art-world institutions were logged on at that time.

In 1994 and 1995, small cadres of leftist intellectuals, tech whizzes, subversives, and artists had begun congregating at online nodes like The Thing, Echo, Nettime, and The Well. Mailing lists and the BBS (bulletin board system) were more than structures for distribution and promotion: They were simultaneously content and community. Like Andy Warhol's Factory, the people as well as the methods of production and distribution were all part of the project's meaning.

Among the more memorable sites that went up in those years were äda'web, Irational.org, and Jodi.org. Äda'web curator Benjamin Weil (recently appointed curator of media arts at the San Francisco Museum of Modern Art [see Jana, p. 166]), who had been active in the art world before founding äda with John Borthwick in 1994, took a foundry approach to Web-based art: Weil invited artists such as Lawrence Weiner, Jenny Holzer, Julia Scher, and Vivian Selbo to experiment

Opposite page, left: **Natalie Bookchin, submission to Desktop Is, a project curated by Alexei Shulgin, 1997–98,** screen capture from easylife.org. Right: **Gamet Hertz, submission to Desktop Is, a project curated by Alexei Shulgin, 1997–98,** screen capture from easylife.org. This page, upper left: **Rachel Baker, submission to Desktop Is, a project curated by Alexei Shulgin, 1997–98,** screen capture from irational.org. Lower right: **screen captures from äda'web.** Top: Julia Scher, Security Land, 1990–93. Bottom: Vivian Selbo, a word from our sponsor #21, 1995.

with Internet tools and spaces, collaborating with his talented producers and designers. Äda'web had an unusual Silicon Alley destiny: First it was acquired by a local content provider called Digital Cities in 1997; then, in early 1998, the new company was bought by AOL, which never figured out a use for äda. Eventually, the platform found a permanent home at the Walker Art Center (adaweb.walkerart.org).

Irational.org (its very name sets it against the logic of capital and industry) was started by British systems analyst turned "artivist" Heath Bunting. His first Internet work, done in 1994, was a project called Kings Cross Phone-In. Bunting posted on a Web page and several mailing lists the phone numbers of thirty-six phone booths in and around London's Kings Cross train station, inviting people to ring those phones at any time on a given day. The calls created a musical intervention that disrupted the daily routine of an urban transportation hub, as commuters circulating through the station chatted with

IN JODI.ORG'S WORK, THE PROGRAMMING IS EXPOSED TO FORM THE PRIMARY CONTENT IN AN ALPHANUMERIC SOUP SO THICK IT OFTEN STUMPS EVEN THE MOST COMPUTER LITERATE.
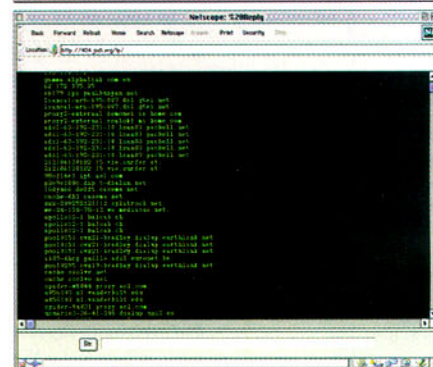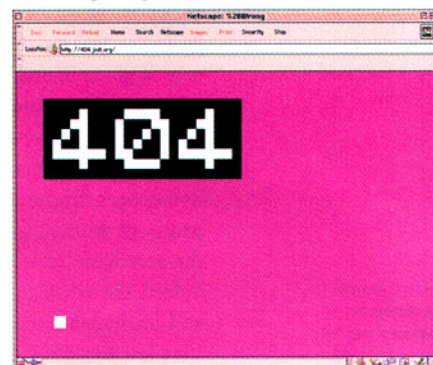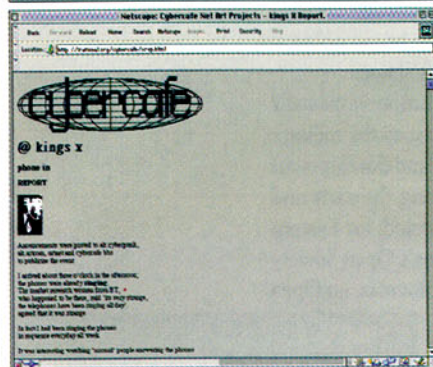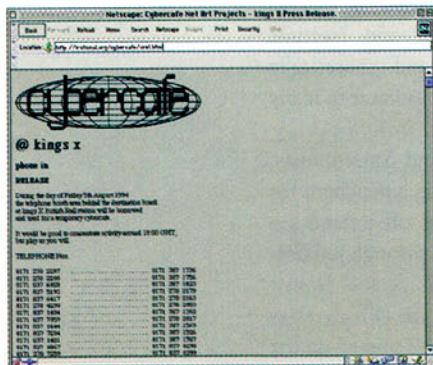
strangers from around the world who were ringing up to say hello. Network functionality was understood on the level of the friendly phone call, as public space was reconfigured aurally and socially. Bunting's modus operandi since 1994 has been to create works/events that are as facile, low-tech, and straightforward as graffiti: simple subversions backed by anarchic conviction. To netizens he is something of a folk hero.
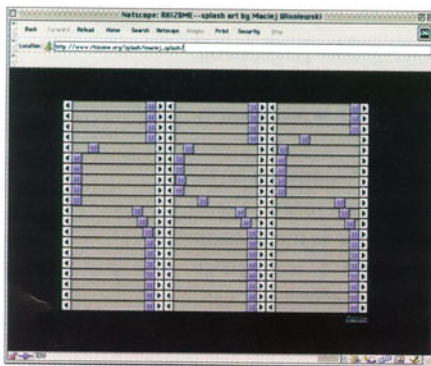
Jodi.org also acquired cult status in the new-media art world. A collaboration between Dirk Paesmans and Joan Heemskerk, Jodi.org began after the two Europeans spent time in San Jose, California, in proximity to companies like Netscape and Apple. Jodi.org's work foregrounds the machine, as per the hacker slogan "We love your computer." When you look at many Jodi.org projects, you will see lines of HTML code. What is usually obscured on a Web page, the programming, is exposed to form the primary content in an alphanumeric soup so thick it often stumps even the most computer literate. Usually, Jodi.org projects offer interactive opportunities; at http://404.jodi.org, for example, the visitor is prompted to type an entry into the site's dialogue boxes. But whatever one submits will get hacked, as 404 regurgitates all the vowels or posts the user's IP address onscreen. Jodi.org speaks to you and your machine in the language of network and hardware.

By 1996 it was clear that Internet technologies were fast becoming significant cultural and economic phenomena, and the digital economy seemed to offer mysterious new financial possibilities, even for niche content providers. Inasmuch as projects like äda'web were out there publishing art, many wondered whether the Internet might not provide homes for alternative spaces and publications and the people who create them. Feed, STIM, Word, New York Online, Bianca's Smut Shack, äda'web, Suck, Rhizome, Echo—all of these were creating, publishing, and propagating, but they made little money. They were propelled forward primarily by their enthusiasm and by a strong sense that the venture capitalists pouring money into the Net were sure to value the new kinds of content these sites provided.

While infrastructure projects were exploring different ways to sustain themselves financially, net.artists were seeking to further define their movement. In May 1996, a group of net.artists met in Trieste, Italy, at a conference called Net.Art Per Se. Notes from this meeting are still available online (www.ljudmila.org/naps), but are best summed up by the fake CNN.com page published to commemorate the event (www.ljudmila.org/naps/cnn/cnn.htm). "Specific Net.Art Found Possible" blares the main headline. Links to net.art projects from the time are shrouded by faux headlines such as "Art Without Social Involvement Is Impossible" and "There's No More Abroad Today."
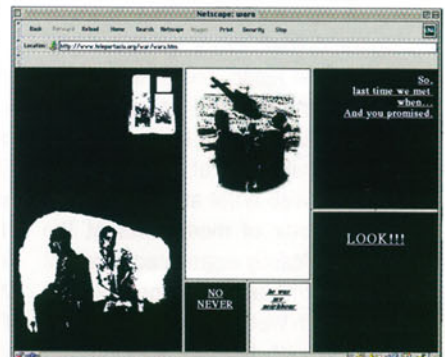
Behind the playful parody of über-corporate news filter CNN was a growing concern that the Internet would soon be colonized by mainstream media and the corporate juggernaut. Around the time of Net.Art Per Se, New York artist Paul Garrin started Name.Space, a project intent on expanding the limited set of URL components (e.g., .com, .net, .co.uk, .edu, .org, .jp). The logic of Name.Space was that if there were a more expansive set of names for websites, it would be more difficult for corporations or individuals to monopolize Web addresses. While Garrin's project entailed an intricate lawsuit to break the domain-name monopoly and had no pretensions to artmaking, it nevertheless shared with contemporary works by Muscovite Alexei Shulgin and Heath Bunting an interest in the literal organization of the public space of the Net. Shulgin's and Bunting's projects from the same time—Link X (www.desk. nl) and Own, Be Owned or Remain Invisible (www.irational.org/ heath/_readme.html), respectively—prove that though domain names (e.g., www.artforum.com, www.love.com) may define Internet property, they can nevertheless be contextualized and recuperated in interesting ways. These artists' "hypertext" projects mapped personal texts onto the Internet, dramatizing the subjective (and bewildering) experience of negotiating a highly commercialized and very public space.
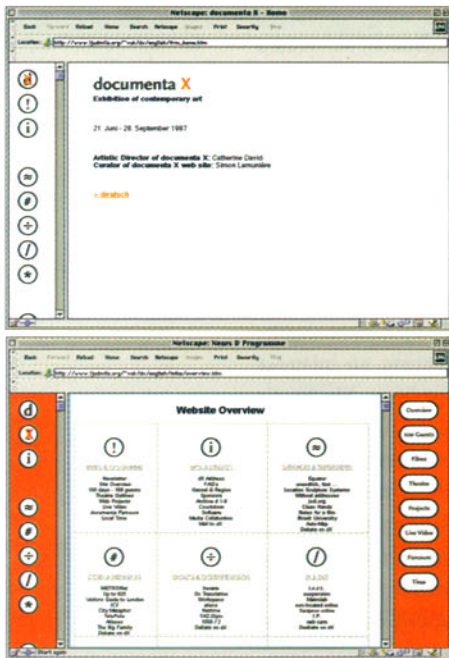
In 1997, net.art exploded. Playful works like 7-11 (an e-mail list, archived at 7-11.org), Desktop Is (curated by Shulgin, www.easylife.org/desktop), Form Art (also curated by Shulgin, www.c3.hu/collection/form), Documenta Done (Vuk Cosic, www.ljudmila.org/~vuk/dx), and Easylife (Shulgin's domain, www.easylife.org) were born, as well as more serious works such as Olia Lialina's My Boyfriend Came Back From the War (www.teleportacia.org/war) and the I/O/D collective's groundbreaking Web Stalker software (www. backspace.org/iod/iod4Winupdates.html). Around the same time, female net.artists began to win a fairer share of the limelight. Rachel Baker, Beth Stryker, Josephine Bosma, Shu Lea Cheang, and the VNS Matrix are just a few of the women who were doing strong work. The VNS Matrix (read "Venus") were important forerunners for net.artists exploring feminist issues. A collective of Australian women living in and around Adelaide, Australia, VNS had published their "Cyberfeminist Manifesto" in 1991. They wrote, for example: "we are the modern cunt / positive anti reason / unbounded unleased unforgiving / we see art with our cunt we make art with our cunt / we believe in jouissance madness holiness and poetry / we are the virus of the new world disorder / rupturing the symbolic from within / saboteurs of big daddy mainframe / the clitoris is a direct line to the matrix VNS MATRIX" (sysx.org/vns/manifesto.html).

Cheang, the filmmaker behind *Fresh Kill* (1994), made a series of websites in 1997 and 1998. Buy One Get One (www.ntticc.or.jp/HoME2), now part of the collection of the ICC, explored technology and access in Asia, Africa, and Australia from Cheang's adopted position as a "cyberhomesteader." Cyberhomesteading, in Cheang's project, had her living out of a "digital bento box," presumably a laptop and some equipment, which allowed her to post her findings on the ICC servers. Around this time, Cheang was commissioned to produce the Guggenheim's first website. Brandon (www.brandon.guggenheim.org), based on the life of Brandon Teena (the subject of the recent film *Boys Don't Cry*), evolved over a year, starting in 1997. Expanding on the life of the biological female who lived and loved as a male, brandon.guggenheim.org hosted gender play online, with Cheang and her team chatting. There was also a substantial off-line component: One forum was held at the Theatre Anatomicum, a Dutch

new-media performance theater once used for experimental gender surgeries on prisoners; a forum on cyberlaw took place at Harvard, resuscitating a case of "cyber-rape," reported when a man was discovered masquerading as a woman in an intimate chat room.

While most participants prided themselves on their net.community's relative enlightenment, cyberfeminism turned out to be an issue of interest to few. There was a flame war when Anne de Haan's e-manifesto "The Vagina Is the Boss on the Internet" was posted to Nettime in June 1996. (The text is archived at www.rhizome.org/cgi/to.cgi?q=698.) Those who cared about cyberfeminism were told by list moderators to take the discussion elsewhere, to women's platforms like the Old Boys Network (www.nettime.org/oldboys).

One "femail" net.artist, Russian Olia Lialina, continued to publish highly elegant projects, out-programming many of her male peers and winning regular commissions and awards. My Boyfriend Came Back From the War, for example, is a filmic narrative of a fated romance. Lialina's work, which often takes an interest in physical beauty and personal aspects of romantic relationships, distinguishing her from other net.artists, has recently explored, variously, legal documents, art dealing, and the address bar of browsers. "War," which made use of basic "frame" programming, was discussed by Lev Manovich, an art-history professor at the University of California, San Diego, in "Behind the Screen," an insightful essay about various influences peculiar to the work of Russian net.artists. Manovich notes that the visual legacy of screens, parallel montage, and frames is rethought in "War." Visitors to Lialina's site are encouraged to experiment, creating frames within frames and new combinations of text and
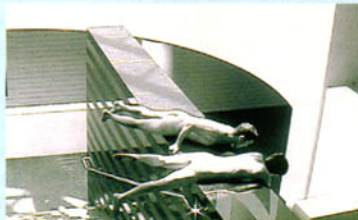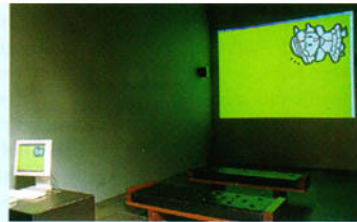
Net Workers

IN THE INTERNET UNIVERSE, time moves faster—sites debut and die, companies launch and go public quicker than a download on a DSL line. And the same rapid pace seems to apply to the rate of increase in institutional recognition and endorsement of Net art in the United States, which is finally catching up to Europe and Japan. The growing roster of Web-savvy media-art curators at major US institutions—which includes Steve Dietz, founding director of new-media initiatives at Minneapolis's Walker Art Center, and Web artist and theorist Jon Ippolito, assistant curator of media arts at the Guggenheim—was significantly augmented by recent back-to-back appointments at two major American museums of curators with Web-art-weighty resumes: In the first two weeks of January, the Whitney Museum of American Art named Christiane Paul as adjunct curator of new-media arts, while the San Francisco Museum of Modern Art named Benjamin Weil as curator of media arts.

Both Paul and Weil have played integral roles in the shaping of major websites dedicated to the showcasing of online art and the theoretical discourse that surrounds it. Paul currently publishes and serves as editor in chief for Intelligent Agent (www.intelligentagent.com), an online (and print) journal addressing the use of interactive media in art and education. She has also written for MIT Press's Leonardo magazine and edited the proceedings of the 1998 conference "Virtual Museums on the Internet" in Salzburg, Austria. From 1998 until his appointment at SF MoMA, Weil had served as the director of new media at the Institute of Contemporary Arts in London and was a cofounder and curator of äda'web (www.adaweb.walkerart.org), the acclaimed forum for original Web art. Weil also cofounded The Thing, an interactive computer network that provides an online forum for critical theory. His curatorial CV includes the international Net-art exhibition "Plain.html," a selection of websites presented in conjunction with "Net_Condition," the first major museum presentation of online artworks, which took place last fall at the Zentrum für Kunst und Medientechnologie in Karlsruhe, Germany.

Paul will bring her knowledge and experience to bear on the collection, preservation, and presentation of works that fall under the rubric of new-media art, which includes digital forms beyond the Web. Her first curatorial project at the Whitney, an exhibition of work by Net artists presented as a component of the museum's ongoing "Contemporary Series," is scheduled to open in the fall.

On the other coast, Weil will be "redefining" the post vacated by Robert R. Riley in December. SF MoMA's Department of Media Arts, founded by Riley in 1987, focuses on time-based art forms utilizing advanced technologies—from video to electronic art in any guise. An online music event, perhaps in collaboration with another institution, is said to be in its planning stages under Weil and is tentatively scheduled to debut in 2001.

"Both Christiane and I are trying to find solutions for showing media art in an 'institutional,' US museum context," Weil observed. "In Europe, the festival paradigm has worked. But what about here? Should we be more institutional? Less institutional? Or should we try to formulate a different model or metaphor for presenting and collecting media art in general?"

Time will tell how Paul's and Weil's online training might affect their museums' respective programming and permanent media-art collections. As Weil notes, "We have an amazing opportunity to carve Net art's place in the historical continuum of video, experimental cinema, past media—and, of course, other forms beyond the Web that have yet to be invented."

—Reena Jana

image. One could argue that My Boyfriend Came Back From the War is an update of Eisenstein's theories of montage within the confines of the Web browser.

Taking an overview of 1997, one might argue that formalism prevailed, with projects such as Desktop Is and Form Art inviting artists to create work using a defined set of objects or HTML protocols. Desktop Is was a seminal net.art show. Its premise was simple: Participants would submit screen shots of their CPU's desktop, which is what you see when you turn on your computer and are not working in any application. It's a user's home base, the location where organization, network interface, shortcuts, and downloaded pages or images might reside. As Alexei Shulgin's curatorial statement explains, the desktop is a user's psychoanalyst, friend, the everyday face of the computer, or perhaps just the last thing one sees before shutting down. Submissions show a range from coy personal revelations (like a folder icon titled "bakerssexuality," as in Rachel Baker's sexuality—if only we could look inside!) to more dazzling arrangements of desktop iconography, like the one submitted by M@, i.e., Matt (Baker's submission is at www.irational.org/tm/desktop.gif and M@'s is at www.easylife.org/desktop/desktops/M@2.jpg).

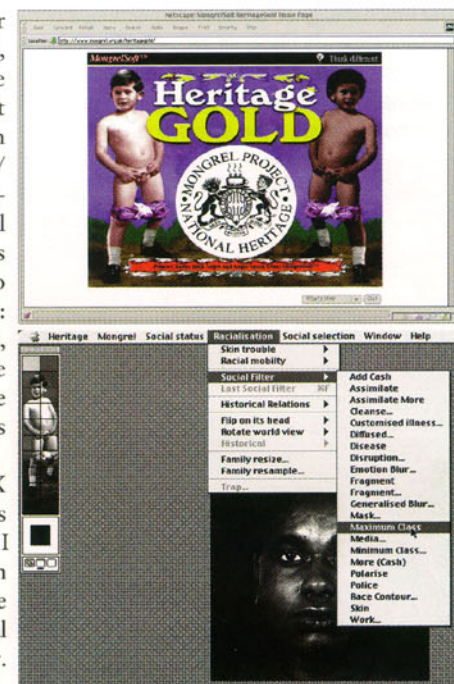There were also a number of identity capers that year. An as-yet-unidentified

SLOVENIAN BAD-BOY ARTIST VUK COSIC CLAIMED THE POACHED DOCUMENTA SIT HIS READYMADE AND CALLED NET.ARTI "DUCHAMP'S IDEAL CHILDREN."

prankster published texts to Rhizome and Nettime under the names of critics Timothy Druckrey and Peter Weibel, using purloined e-mails from them. (Only one of these texts seems to be currently available: The counterfeit review of Heath Bunting by The Artist Claiming to Be Tim Druckrey is archived on Nettime at www.nettime.org/nettime.w3archive/199712/msg00036.html.) There was also the fictitious Keiko Suzuki, who started a new listserve, borrowing the name 7-11. On the Net, identity tricks are relatively easy to pull off and effective at destabilizing (complacent or boring) communities, and these capers imbued cyberspace with an air of mischief and unpredictability. 7-11 was dedicated to the irrational and the excessive. Operationally, it worked as a high-volume list: People posted to it and read from it several times a day. 7-11 was junk, e-mail art, confusion, banter, innuendo, jokes, notes from people who mistook it for a service provided by the convenience-store chain. Keiko Suzuki, who disappeared into the ether when the list eventually dwindled, was likely the shared avatar of online wags tired of the headier "discourse" typically posted to lists like Rhizome and Nettime.

But the crowning case of stolen identity had to be the cloning of the Documenta X site, Documenta Done, by Slovenian bad-boy artist Vuk Cosic. Cosic, who has recently done a brilliant ASCII film series (including Deep Throat rendered in ASCII characters!) used a readily available robot program, or "bot," to copy the site when Documenta announced that it was soon to be taken down. The Helen of Troy of the off-line art world, the Documenta X website was, in Cosic's opinion, too institutional and pretentious to pass up, not least because its disappearance was treated ceremonially. Cosic, who was vilified in the press as an "Eastern European hacker," once commented that the poached Documenta site was his readymade and proclaimed that net.artists are "Duchamp's ideal children."

Perhaps the most ambitious artwork of 1997 came from the collective I/O/D, which published a Web browser. When I asked I/O/D member Simon Pope about the decision to develop software, he replied, "We tried to expand on the idea of 'software as culture' and to break through some of the assumptions made by mainstream software developers. When operating systems start to be described as natural resources, alarm bells should ring." A network-ready software tool,

Opposite page, clockwise from top left: **Vuk Cosic, Documenta Done, 1997,** screen captures from ljudmila.org/~vuk. **View of Whitney Biennial 2000 multimedia room,** on screen: Ben Benjamin's Superbad, superbad.com. **Julia Scher, Predictive Engineering 2, 1998,** still from Web-based streamed video. This page, upper left: **Mark Napier, Digital Landfill, 1998,** screen captures from potatoland.org. Lower right: **Mongrel, Heritage Gold, 1998,** screen captures from computer application.

MA'

Web Stalker reads HTML differently than traditional browsers like Netscape Navigator and Microsoft's Internet Explorer. Instead of displaying what the designers and producers intended you to see, Web Stalker maps the external links from any given HTML page. Simply put, I/O/D's browser traces out the space between Web pages. From a broader perspective, Web Stalker signaled a paradigmatic shift in net.art: Web pages were suddenly recherché; networked applications were the new thing.

The move away from Web pages continued in 1998, as software, cultural terrorism, radio, and the incipient institutionalization of net.art became hot areas of investigation. Web pages, if they hoped to win any attention in this climate, came under increasing pressure that year either to contain highly volatile content—like Heath Bunting and Natalie Jeremijenko's Biotech Hobbyist e-'zine (available at www.irational.org/biotech), which offers recipes on how to clone human skin at home, for example—or to transcend themselves. New York artist Mark Napier, for instance, made two interesting pieces that destroy or disfigure HTML objects. His Digital Landfill (www.potatoland.org/landfill) and Shredder (www.potatoland.org/shredder) tear the components of any Web page away from their code and either reconfigure them into a new design (Shredder) or add them to a dump pile of components from other pages (Landfill). These works are dynamic and fun, a bit like voodoo dolls for websites: Enter a URL and watch the chosen site get trashed.

In 1998, the British collective Mongrel released an impressive shareware software product called Heritage Gold (www.mongrel.org.uk/heritagegold). Based on the ubiquitous graphics software Adobe Photoshop, Heritage Gold replaces its banal tools and commands ("Enlarge," "Flatten") with terms pregnant with racial and class significance ("Define Breed," "Paste into Host Skin," "Rotate World View"). Graham Harwood, a member of Mongrel, describes Heritage Gold's abilities: "You can invent a new family . . . you can have immigration, repatriation." The software's menus allow users to add, modify, or reduce the levels and inflections of ethnicity in their own photos, from Chinese to African, East Indian to Caucasian. The meta-beauty of Heritage Gold is its candor as a socially engaged software tool. Useful for modifying ethnicity, race, and class signifiers in photographs, Heritage Gold (which is, by the way, shareware—downloadable for free) foregrounds issues on which technology is resolutely mute. Very few of the tools and materials—including software and computers—that we work with every day are scrutinized to reveal the ways in which they reproduce, support, or simply permit oppressive social or economic relations.

Net.art produced a very different vibe in 1999, as net.artists were seemingly empowered by their sense of pending popularity and relevance. New York–based artist Maciej Wisniewski designed Netomat (www.netomat.net), a project he and Postmasters curator Tamas Banovich have been shopping around to the industry. With its ability to yoke together words and images, unlike normal search engines, which only return Web pages, the Netomat software produces compelling, one-of-a-kind collages. Many artists started making use of e-commerce capabilities, whether on eBay or by building their own online gallery, as Olia Lialina (art.teleportacia.org/art-ns4.html) and John Simon Jr. (www.numeral.com/everyicon.html) have done. Wolfgang Staehle, Tamas Banovich, Marie Ringler, Rachel Baker, and other net.art luminaries began receiving what is now a flood of invitations to speak on panels and at conferences about the Internet. Indeed, net.art had acquired such cachet, if not prestige, that it came as little surprise that about a sixth of the artists' grants issued by Creative Capital, a new arts-funding resource, went to persons working on Internet-based projects. And, of course, this year net.art was not only included for the first time in the Whitney Biennial, but well represented, with a broad range of projects, including works by Fakeshop, Ben Benjamin, Annette Weintraub, Mark Amerika, Ken Goldberg, and ®™ark, among others.

Originally conceived as an alternative social field where art and everyday life were merged, net.art may now seem threatened by its own success—that is, likely to cede a degree of its freewheeling, antiestablishment spirit as it is further brought into the institutional fold. But the Internet's prodigious capacity for hosting and inspiring politicized, "hacktivist" artwork shouldn't be underestimated. And as the Net moves precipitously toward convergence with television, new strategies are urgently needed to maneuver freely, sovereignly, through an increasingly factitious, total-media environment. In their essay "The ABC of Tactical Media" (1997), David Garcia, an artist and media activist, and Geert Lovink, a member of the Dutch media collective Adilkno and moderator of Nettime, eloquently describe the approach that net.art's most ambitious cultural workers have taken and continue to take: "How do we as consumers use the texts and artifacts that surround us?" And in Michel de Certeau's *The Practice of Everyday Life* (1974) they found their answer: "Tactically." "That is," Garcia and Lovink continue, "in far more creative and rebellious ways than had previously been imagined. . . . An existential aesthetic. An aesthetic of poaching, tricking, reading, speaking, strolling, shopping, desiring. Clever tricks, the hunter's cunning, maneuvers, polymorphic situations, joyful discoveries, poetic as well as warlike." □