

of course, the World Wide Web, people communicate and confront information in ways that would have been unimaginable only a decade ago. While the merits and pitfalls of the Information Age are still actively debated, a number of contemporary artists have embraced technology in response to this cultural shift. In the spirit of 010101: Art in Technological Times—which has been on view online since January 1, 2001, and will be in the sFMOMA galleries from March 3 to July 8— the editors of **Opern** decided to find out what happens when you bring together artists involved with everything from online art to sculpture-making machines for a discussion in an Internet chat room. We found that even across three time zones and two continents, contemporary artists approach technology and culture in the twenty-first century with a striking mix of optimism and cynicism.

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have just entered room "010101 Round Table."

- KATHLEEN FORDE Good morning/afternoon/evening. Welcome to our first OPEN online round table. The goal of this discussion is to explore how each of you uniquely deals with and reflect upon art and technology at the turn of the twenty-first century. There are no rules for this conversationfeel free to chime in anytime and ask each other questions. With that said, let's begin. Each of you work with different media; please briefly describe your current projects and when you first started integrating new technologies into your working process.
- JEREMY BLAKE | am currently working with traditional drawing, sound, and digital media, including DVD and photographic output. I started painting in the eighties, and I stopped in 1994 when I began to make videos. When I found out about all the things you can do easily with a computer (including chatting online with a bunch of "buddies" in realtime), I thought it was worth exploring...
- CHAR DAVIES My current medium is immersive virtual space. It's a visual, aural, spatial, and temporal arena wherein an artist's mental modes or abstract constructs can be given a three-dimensional virtual embodiment that is kinesthetically explored by participants through full-body interaction.
- FORDE Alison and Jon, you started working online in the early stages of the Web and are considered among the progenitors of online art. What did you work on before the Net?
- THOMSON & CRAIGHEAD We've been working with sound and video for the last eight years or so; however, since about 1996, we've also been looking at the Net as a place to site artworks. Much of what we do online tends to look at ways of manipulating existing data as opposed to adding our own representations to an already burgeoning global database that is our World Wide Web. We've continued working in the gallery and over the last couple of years have staged a number of installations, but our gallery practice and Internet works now seem to be converging; what were once two very different strands seem almost indivisible. What artists (past and present) have influenced you? FORDE

THOMSON & CRAIGHEAD Apart from the obvious answer—that all of our art histories bear down on contemporary practitioners-we would have to say contemporary German artist Hans Haacke, performance artist Piero Manzoni, and Spanish Baroque painter Diego Velázquez. All three share a remarkable ability to identify and comment on landmark developments in the world around them-whether it's the games of viewpoint being played in Velázguez's Las Meninas or Manzoni's canned feces. Yet at the same time, all of them seem able to transform these momentary commentaries into forms and ideas that have endured. FORDE

Roxy, your work over the past five years has been noted for its wild diversity. In 1997 you created Psilocybe Cubensis Field, a field of 2,200 meticulously handcrafted replicas of mushrooms scattered on a gallery floor. Your Paint Dipper, 1997, is a machine that repeatedly dips canvases into a basin of white paint to produce a series of minimalist paintings. What are you working on now?

ROXY PAINE The piece I am making for SFMOMA, scumak no. 2, is my second automated sculpture-making machine. Each painting or sculpture first exists as a program before it becomes a physical object. The program is FORDE

John Maeda, Sony Career

Development Professor of Media Arts and Sciences and associate director of the MIT Media Laboratory in Cambridge, Massachusetts, has created animated computer graphic programs, print design, and most recently three-dimensional artworks. Maeda's animated graphics program TAP, TYPE, WRITE, will be on view in 010101.

www.maedastudio.com

Roxy Paine, an artist based in Brooklyn, New York, has had solo exhibitions in the United States and Europe and in 1997 won the Aldrich Museum of Art Trustees Award for an Emerging Artist. For 010101, Paine created a SCUMAK, a machine that produces thermoplastic blob sculptures.

Thomson & Craighead are

London-based Jon Thomson and Alison Craighead, who are considered pioneers of online art. Blending biting wit with a serious critique of the way we use the Internet (and it uses us), the duo created an original digital artwork, E-POLTER-GEIST, for 010101

www.thomson-craighead.net

Kathleen Forde, SFMOMA CURA-BLAKE torial associate of media arts and 010101 cocurator, served as chat moderator.

much of your work explores the potential of using the computer as a tool for creating beauty, often by using animated graphics in playful new ways. Where are you taking these experiments now? JOHN MAEDA I'm currently using wood, plastic, gesso, fasteners, and numerals. In the recent Post Digital exhibition at the Cristinerose Gallery in New York, there were twenty-six objects on display that represent my current approach, which I call "less-tech" art (versus "hightech" or "low-tech"). Their explanation lies in their physicality, so unfortunately I cannot describe them completely in words. If I were to attempt to do so, I would call them a form of concrete Abstract Expressionism. FORDE So, John, while so many other artists are getting more involved in technology, your current work moves away from it? MAEDA I am interested in refining the fundamental nature of technology through an exploration of abstractions that are weakly linked to the conceptual domain of electronically motivated materials. THOMSON & CRAIGHEAD What's an electronically motivated material? MAEDA An electronically motivated material works upon principles that are invisible and nonintuitive to our usual physical senses. THOMSON & CRAIGHEAD Could you give us an example? MAEDA An extreme example is the device you are sitting in front of, except with the monitor display and keyboard/inputs removed. A simpler example would be an individual microchip. THOMSON & CRAIGHEAD Individual microchip? So you mean things you can plug into the wall? MAEDA Not necessarily. I am referring to anything with alternative consciousness, in which the thought space is synthetic in some manner. FORDE While John Maeda worked in computer programming, many of you trained in more traditional art media-Char and Jeremy as painters, for example. Roxy what is your background? What did you do before your automated painting and sculpture machines? PAINE I also started out painting but moved into sculpture about twelve years ago. At that time I was working between hard-edged automated 31 machines and organic materials, which produced chaotic results. This work eventually evolved into the automated art-making machines. Although I no longer consider myself a painter, I consider some of my pieces to be paintings, and the concerns of painting keep bubbling up in my work. THOMSON & CRAIGHEAD We are very keen not to be described as "digital

artists" . . . or "painters" for that matter. In many ways, we feel that the simple term "artist" is the lesser of all evils. Right, in general I wouldn't join any club that would have me, but I have no problem identifying myself as an artist. The work of other artists still influences me more than any developments in the world of technology. As a student of painting, I admired the work of Gerhard Richter, Ed

Jeremy Blake, based in New 30 York City, redefines the role of the painter in technological times by creating digital C-prints and computer-animated "paintings." Blake's LIQUID VILLA and GUCCINAM will be on view in 010101.

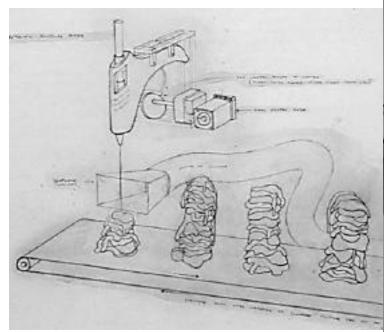
> Char Davies, based in Montreal and San Francisco, creates full-body immersive virtual environments. Her widely acclaimed works osmoseand EPHÉMÈRE will be installed in 010101.

www.immersence.com

not randomly generated but created in advance so that the whole system becomes a surrogate for me. The scumak creates unique sculptures through heating and cooling thermoplastic at different intervals. In response to your previous question about invludences, I would count a similarly diverse group, including Pieter Brueghel, factory aesthetics, hallucinogens, and Sigmar Polke.

John, you formerly worked as both an engineer and graphic designer;



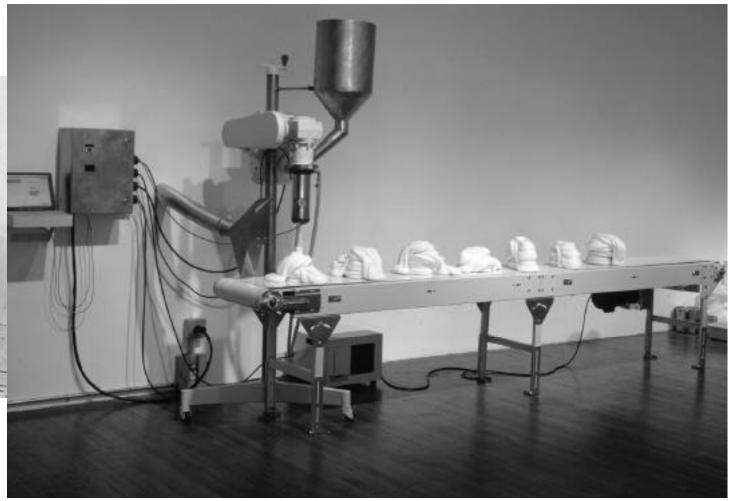


Ruscha, and James Rosenquist. I was, and still am, interested in these painters for the smooth, photo-quality finish of their paintings. I like that each of these painters has a profound understanding of how cinematic timing can be employed in a static medium. I also value their ability to sustain so much of what I read as poserful emotional content into such a flat space. I am also drawn to the abstract work of Barnett Newman, John LcLaughlin, and Gene Davis for similar reasons. When I found that the computer allowed me to "paint" and print the results like a photo, it satisfied an aesthetic goal that I first had while painting.

Char, how does your painting background inform your immersive installations?

If I could paint space and time and light as J. M. W. Turner did, I would still be painting. Actually, I should qualify that: I am still painting, except I'm using a medium that creates a new type of painterly space in which everything is perceptually in flux and responsive to the viewer/participant. But to answer your question more directly, I began painting in the late 1970s, initially as a realist. I wanted to learn the rules before I broke them. Eventually I moved away from the hard edges of realism into a much more ambiguous, sensuous, luminous kind of space, and I found that the two-dimensional picture plane was inadequate for expressing what I wanted to say. In the early 1980s I came across three-dimensional computer graphics and intuited that this virtual space might be what I was looking for (it was the space, not the graphics or computer technology that interested me). So my gravitation to immersive virtual environments in the mid-1990s was a natural progression. However, the sensibility of my work-both aesthetically and thematically—has roots in my former painting.

Roxy, by making machines that create art, you—like as so many contemporary artists working with technology today—seem to let go of a certain element of control.



Most of my work now trolled or is, at least, interaction of forces dynamics. I am also Though the process a individual sculptures a result, they are insta as individual entities. How then do you inter of the artist in techno tered through some ty I cast a skeptical, if m This is a natural exter vidual artist's hand ar this is only one aspec Jeremy, you create y flat plasma screens a machines in your artist Using computers has painting. Unless mac artist, I generally don artwork, or any other puter as an update of

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above left: Roxy Paine, scuмак, 2000 above right: Roxy Paine, sкuмак (sketch), 2000 opposite: Roxy Paine, skuмак (installation view), 2000 FORDE

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≣ 32 ⊡ Most of my work now is playing between what can and cannot be controlled or is, at least, difficult to control because it involves a complex interaction of forces—specifically gravity, thermal dynamics, and liquid dynamics. I am also playing with mass production and uniqueness. Though the process and product are of equal importance, I want the individual sculptures to be compelling independent of the machine. As a result, they are installed with the *scumak* and also exhibitied and sold as individual entities.

How then do you interpret the role of the "hand" or creative signature of the artist in technology-based art—when that process is so often filtered through some type of interface or machine?

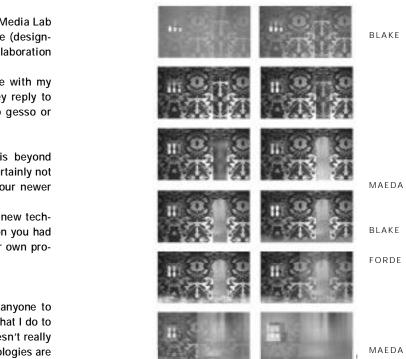
I cast a skeptical, if not cynical, eye on the idea of the "artist's hand." This is a natural extension of the minimalist idea of removing the individual artist's hand and/or emotional content from the work. However, this is only one aspect of my work and not my primary goal.

Jeremy, you create your futuristic "paintings" with software and use flat plasma screens as your "canvas." How do you view the role of machines in your artistic process?

Using computers has allowed me to make a new kind of time-based painting. Unless machines are fetishized to an absurd degree by the artist, I generally don't think they are a barrier to emotive or intelligent artwork, or any other kind of artwork for that matter. I think of the computer as an update of the electric guitar: a pop medium with profound

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		emotive power and, alternately, and incredible capacity to enable drab sultural cliches.	
	FORDE	John, through your work as the associate director of the MIT Media Lab and as a professor you have worked with many other people (design- ers, researchers, engineers, students). The benefits of collaboration	
	MAEDA	seem fairly evident—but what are the challenges? Actually, I do not collaborate with anyone. I do collaborate with my	
95 5 2000		materials though. I talk to my materials and sometimes they reply to	
1995 995 3), 2		me in the way they bend and break. This refers not just to gesso or	8
v), , 1 ails		wood but to software as well.	
(installation view), 1995 osmose (details), 1995 e, guccınam (details), 2(FORDE	Jon and Alison, do you do all your own programming?	
	THOMSON	& CRAIGHEAD Most of the time, yes. But if some task is beyond	8
utio : (d NAN		what we know at that time, we'll ask someone else. We are certainly not	
alla ose ccii		purists and believe quite strongly that the proliferation of our newer	
		technologies tends to promote a need for collaboration.	
	FORDE	Thankfully there is no consensus on how artists should use new tech-	6
ies, osmose (Char Davies, Jeremy Blake		nology. Jeremy, you recently mentioned to me a conversation you had	1
smo Dav iy E		with John Maeda regarding digital artists who don't do their own pro-	
s, o ar ren		gramming. Didn't he call such artists "stylists"?	
Char Davies, osmose (i below: Char Davies, c above: Jeremy Blake,	THOMSON	& CRAIGHEAD Does Jeff Koons make his own paintings?	
	FORDE	Good point.	8
	MAEDA	Implementation issues aside, I don't think it is realistic for anyone to	
ie b ie a		refer to him- or herself as a "digital artist." I don't consider what I do to	8
elow: C pposite pposite		be in any one particular area or mode of inquiry. "Digital" doesn't really	2
below: C opposite opposite		mean much anymore when you consider that computer technologies are	12
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previous mistakes. the artwork itself? as a performance? for an audience.

at all levels and scales in our civilization. Everything is digital—copy machines, hair dryers, microwave ovens—but we don't refer to them as "digital." Why should we both to refer to digital art?

That "stylist" comment came up during an interview I did with John in 1999 for Art Byte magazine, using me as an example. I didn't take offense because his rhetoric at the time was deliverately adamant in order to make a valuable point: There are inherent constraints to storebought programs such as Adobe Photoshop or Illustrator, and really mastering the medium requires the ability to program. I do, of course, appreciate John's work not only for the way it looks but also for its subtle use of sophisticated programming. Therefore, John's work generally gets this stylist's nod of approval, why is why I ended that interview by asking him to sign a copy of his book Design by Numbers for me.

I actually created that book to throw away my old style of thinking. Since November 2000, I have started over again. I am repentant of my previous mistakes.

Don't repent, John! Think of the words of Iggy Pop: "Look out honey 'cause I'm using technology/Ain't got time to make no apology."

John, SFMOMA will be showing your *Tap, Type, Write* in 010101. According to Aaron Betsky, SFMOMA curator of architecture, design, and digital projects, this work makes "many of the dreams of modernist graphic designers, who sought to capture the energy of the machine age in typography, come true." Do you discard this along with your other "mistakes" or does it still hold some value for you?

Of course. *Tap, Type, Write* was about a reduction to two colors. My new work is about reduction to technologies that are cognitively macroscopic. My new work digs deeper into the material of thought—the conceptual layer of technology.

Many of you create work that could be defined as interactive or iterative in that a viewer effects the chance development of the piece by physically participating, whether clicking a mouse or wearing a visor. Thomson & Craighead, your *e-poltergeist*, the online piece SFMOMA commissioned for 010101, toys with the visible and invisible structures of Web sites. As viewers go through the site, the computer code creates an invisible canvas that distributes random sound bites from a series of preselected URLS. Is the viewer's navigation through the piece the artwork itself?

THOMSON & CRAIGHEAD As far as we're concerned, many of the works we make (whether online or in the gallery) are not interactive in the purest sense, but are navigable bodies of data.

Roxy, in the case of your *scumak*, the machine creates a series of sculptures—sort of an "artist in the machine" to Thomson & Craighead's code-driven "ghost in the machine." Do you see the *scumak*'s activity as a performance?

Actually, I dislike the idea of the piece being a performance. I prefer to view it as something that is just there doing its thing, not performing for an audience.

Yes, I for one don't want to go toward interactivity. Contemporary theorist Slavoj Zizek talks about the pleasure of "interpassivity." Watching, absorbing, meditative reception—I'm more interested in expanding that terrain at the moment, in creating hybrid forms by synthesizing traditional media. For example, I blend painting and photography in my C-

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prints, mix issues from painting and time-based media in my DVD projections, and combine traditional drawing with the implication of cinematic time through hand-drawn "scripts." All of my work draws from part precedents but ultimately operates from a carefully staked out contemporary place. It's not about painting or film-it's about artwork that combines those things.

It's interesting that Jeremy brought up Slavoj Zizek, since the Lacanian FORDE scholar and cultural critic recently spoke about how virtual phenomena ultimately reveals the extent to which our notion of self has always been virtual. Char, your immersive environments-which often give the experience of diving and floating-directly respond to the viewer's movements. Can you comment on the nature of these virtual environments?

> My work relies on the participant's breath and balance as the primary interface. For example, when participants breathe in and out they "float" up and down accordingly. In ephemere we also introduced give as a means of generating response from certain elements in the environment. The sensation of floating, gravity-free, in a sensuously enveloping oceanic space was informed by my experiences as a scuba diver. But it goes beyond that: The conventional interface devices-such as a computer mouse, keyboard, and joystick-tent to reinforce a state of disembodiment, with the "user" serving only as a probing hand and eye. By creating work that transforms in response to the participant's movement, I have sought to reaffirm the role of the individual-the felt body with the virtual realm.

So the experience is different for every viewer?

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Craighead, E-POLTERGEIST (details), 2001 & Craighead, E-POLTERGEIST (preliminary sketches),

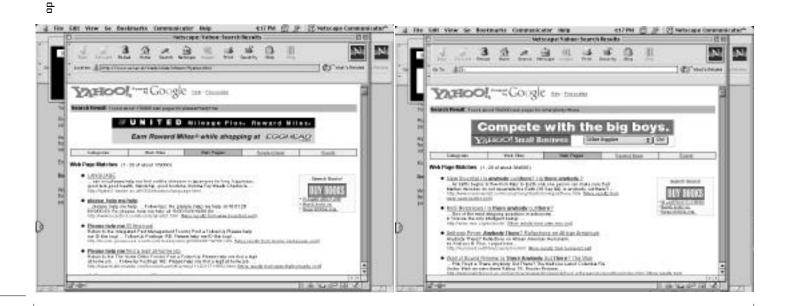
below: Thomson & opposite: Thomson

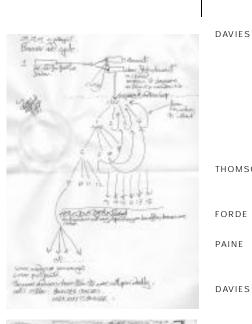
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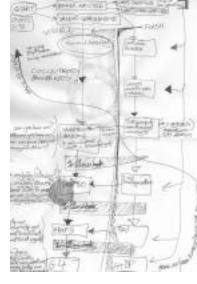
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Just as each person's walk through a woods or meadow is different, each immersant's exerpience or journey is unique. The work is designed so that participants have a very private, solitary, and often intimate and emotional experience. However, in museum installations, each journey actually becomes a performance; while a silhouette of the participant's body is projected into the installation space, there is also a live video and sound projection of the virtual realms from the immersant's point of view.

Does it completely miss the point for people to describe your work as fun or is that the intention to a certain extent? Is it a "door," if you will, to an experience that is more thoughtful and layered? I sense a tension between playfulness and sarcasm, skepticism and nostalgia in most of vour work.







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THOMSON & CRAIGHEAD If people are entertained, that's one way of (perhaps) encouraging a viewer/user of a work to contemplate it a little.

BLAKE

MAEDA

I don't intend for my work to be fun. As for the latter, I like those tensions. In fact, I'm most interested in the inherent contradictions within the work. For example, the scenario of mass production-which is normally defined by efficiency, speed, and sameness-is contradicted by the scumak's slowness (each sculpture requires a day or more for completion) and the variety of objects produced.

Of course I want people to have fun, but not in the gleeful sense. I'm into a kind of dark-pop. Entertainment isn't a dirty word for me, but I would be surprised if fun" was the first word out of anyone's mouth after viewing my work. I want to go to a more reflective place, but one that includes a healthy sense of humor. Humor is philosophy in practice-philosophy from the trenches.

"Fun" is not a word I would associate with my work. I've seen too many people crying or otherwise emotionally overcome after the experience. "Nostalgia" might be more relevant because I have been told by numerous people that they felt a connection with something they'd known as children—some sense of enthrallment, of being alive in the world. Consequently, they come out feeling a huge, inexplicable sense of loss that stays with them for days. On another level, I would suggest that this might also be because people sense-and rightly so-that one day virtual environments might be all we have left.

THOMSON & CRAIGHEAD Char, we found your Osmose piece lots of fun when we used it in London some years ago. Furthermore, if someone cries at the end of a film, they were probably entertained.

> What are you working on now? Are you continuing to explore the same issues or moving in new directions?

> Besides the scumak for 010101. I am working on a new painting machine called *PMU* and a new ink wash drawing machine. Both of these projects continue to explore the ambiguities and futility of control.

> I'm assembling a team and beginning work on a new project, but I think it jinxes it to talk about it too soon. It should be done in two years or so (we spend a lot of time doing research). All my work, from the immersive virtual environments back through my paintings twenty years ago, is a single project that delves into and translates my understanding of what it means to be here now, alive, caught up in space and time.

THOMSON & CRAIGHEAD Our new project is to stop Damien Hirst's spot print from reaching Mars! More seriously, we're not sure—although we have just finished installing a mobile phone audio work called 37 Telephony at the Mobile Home Gallery in London. In Telephony, we've mounted a grid of forty-two mobile phones onto the gallery wall and reprogrammed each one to play a different ring tone. This is the first time we've made a network-reliant installation for a gallery, and it will hopefully mark the beginning of a new thread of gallery work for us.

> My next project will be a series of time-based paintings on DVD-each of which is intended to be a station in or passage through the alternately architectonic and completely abstract zones of an imaginary urban transportation system. (Sounds pretty straight forward doesn't it?) Basically, I'm making a phenomenological map of the city and simultaneously documenting my own psychological "infrastructure."

> I am writing and illustrating a children's book and installing my current

work for Coded Blue at the California College of Arts and Crafts Institute in San Francisco. Funny thing, I was doing a class review here at ccac two hours ago and students came in to see the installation in development. We parted on a notion of broken technologies and they get in the elevator and then were stuck in it for ten minutes.

It's hard to ignore that the proliferation of technology in every aspect FORDE of our lives has a dark side. On this note, But on a more upbeat note, what would be your dream project, financial and technological limitations aside?

- My dream project would be a full-body immersive, interresponsive vir-DAVIES tual environment that exists without the encumbrances of machines. I imagine these works as "time-space arenas" consisting of a perceptually altering reality that anyone could enter from wherever they happen to be, ultimately taking people beyond their habitual everyday assumptions and preoccupations. Following this trail of thought further, I think what I would wish to do most of all, more selfishly, would be to enter such a heightened reality-to effectively cleanse the "doors of perception" and never come back.
- PAINE One project would be to create a machine that would produce fields of fungi, each organism unique and complete. I would enter in the genetic information for each species and the machine would output unique organisms en masse.
- My dream project at the moment is to do something similar to what I am BLAKE currently doing but on plasma wallpaper that would allow me to go as large and ephemneral as a projection while retaining the high-resolution quality of a monitor.
- THOMSON & CRAIGHEAD If money really was not an object, then we would want our own satellite network and the ability to deliver broadband data to handheld devices that would be dynamically updated with new content depending on global positioning technologies.

Any last words or parting thoughts before we wrap things up? FORDE

THOMSON	& CRAIGHEAD S	beaking is quicker than typing	! It was lovely to chat/
	meet you all, bye- Thomson & (Craighead	have left
PAINE	Thank you and see Roxy Paine	e you in March.	has left
MAEDA	Thanks; goodbye. John Maeda	has left	
DAVIES	See you in San Fra Char Davies	ancisco in the springtime!	has left
BLAKE	Thanks, Kathleen!	Keep it rockin' till the law co	mes knockin'. Over.
FORDE	And out. Jeremy Blak	e	has left
	Kathleen For	rde	has left

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below: John Maeda, TAP TYPE WRITE (details), 1998



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SiliconValley.com, and BayArea.com.

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