

# ARTBYTE

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**Erik Davis on 2K Myths**  
**Ken Goldberg's Ouija 2000**  
**Peter Esmonde on Guru Culture**



# PROPHETS & PROFITS

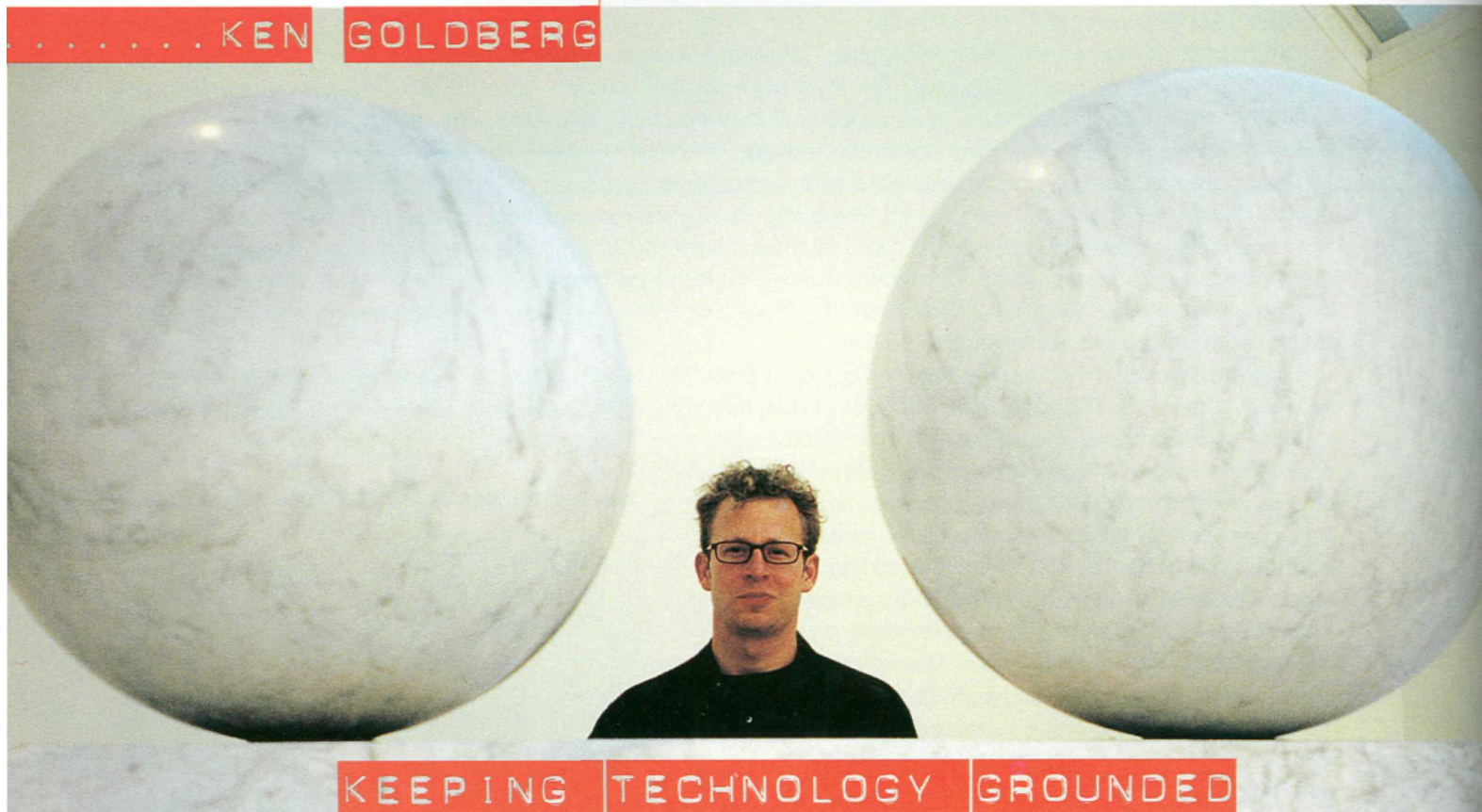
**Hocus Focus by Brian Pew**  
**plus Artist Lands Space Shuttle!**

# Y2K ASTROLOGICAL SCREENPLAYS

by G. Roger Denson



.....KEN GOLDBERG



KEEPING TECHNOLOGY GROUNDED

Right: Ken Goldberg,  
*The Telegarden*  
<telegarden.aec.at>, Ars  
Electronica Museum, Linz,  
Austria (6x6x6 ft.), 1995.

Opposite page: Ken Goldberg,  
standing between artist and  
engineer.



Anyone who has logged on to Ken Goldberg's *Telegarden* site <telegarden.aec.at>—the most widely-recognized piece in this UC Berkeley engineering professor-cum-artist's expanding oeuvre—knows that Goldberg's "Internet installations" are playful. At the site, registered visitors plant seeds in and tend a real, 6x6x6 ft. garden plot (located at the Ars Electronica Museum in Linz, Austria) via a telerobotic device. On the surface, it's gardening for geeks, Eden for urbanites. Good, clean fun: a real-time, online way to play green-thumb, a far cry from playing mercenary killer in one of those bloody, shoot 'em up live Internet games.

But an idyllic world this is not.

Below the surface, *Telegarden* seems inspired more by Orson Welles than Martha Stewart. After spending some time observing the pixellated pictures of the garden (wait, are these images live or are these staged?), the cynic in us causes us to wonder, could this be a scam? Why should we trust the veracity of this site any more than we would have trusted the authenticity of that infamously sleazy "Our First Time" homepage a few years ago?

A skeptical reaction like this couldn't please Goldberg more.

"A lot of people think *The Telegarden* is unreal," says Goldberg over a lunch of "Shaking Beef" at the Slanted Door, a low-key hotspot in San Francisco's Mission District. He's wearing nearly head-to-toe artist's black, except for a bright crimson stripe on his hipster bowling shirt. "But they also think *Telegarden* is fun and cool," Goldberg continues. "That's intentional. I try to raise red flags about the potential dangers of technology in a subliminal, non-didactic way. But my work is really about dystopia and dysfunction more than anything else."

Indeed, once we get beyond the initial "wow" factor of Goldberg's Internet installations we start to notice their slightly sinister edge. Goldberg's works have a funhouse effect: their reality becomes questionable. Yet because of the dazzling visual effects we encounter, we willingly suspend our disbelief. And in the process, we enjoy ourselves immensely—but never without a good, healthy scare, of course.

Even Goldberg's first major art piece had such a dark side. As a doctoral candidate in engineering at Carnegie Mellon University in the late 1980s, Goldberg created a robotic arm that could paint—as if it were a severed limb of the late Jackson Pollock, revived. Goldberg was partially inspired by the artist Harold Cohen, a color field painter who dabbled in artificial intelligence, whose work Goldberg had seen at London's Tate Gallery when studying abroad.

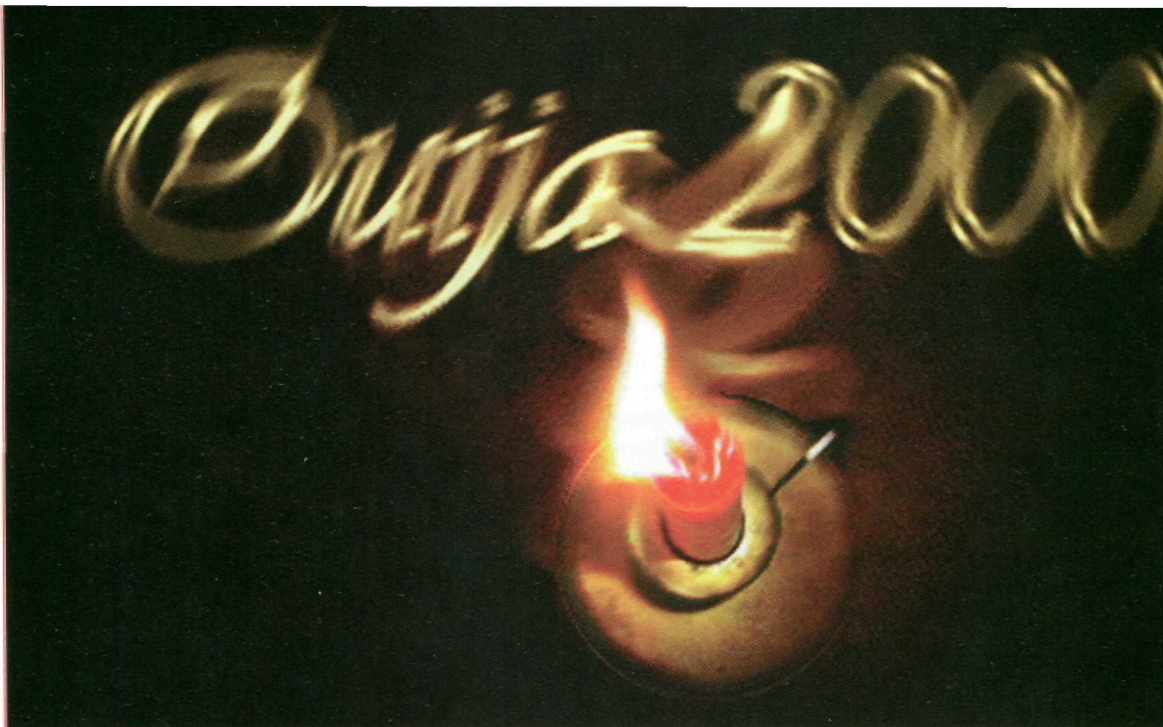
When Goldberg heard Cohen was going to visit CMU, he tracked down the artist to show off his eerie, Dr. Frankenstein-for-the-digital-age project as "art." At the meeting with Cohen, Goldberg's robotic arm painted some splatters on a canvas, then dropped its brush and engaged in a three-dimensional dance. Goldberg was delighted. Cohen wasn't impressed.

"I'm into line, not form!" the artist huffed, storming out of the room, dismissing the young engineer's artistic attempt.



Right: Ken Goldberg, *Ouija 2000*, interactive Web site to open in January 2000.

Below: Ken Goldberg.



"I was actually more interested in seeing the robot move," Goldberg says, looking back. "And I was also acutely aware of the potential destructive power of such a robotic device." He wound up showcasing the robotic arm at SIGGRAPH's art exhibition in 1992.

And so began a career in art-making, one that's flourishing alongside his extraordinarily successful "day job" as an associate professor at UC Berkeley's Industrial Engineering and Operations Research department, where he researches geometric algorithms for robotics and industrial applications (he was awarded a prestigious \$100,000 National Science Foundation grant for his research in 1995). And in early 2000, MIT Press publishes the Goldberg-edited *The Robot in the Garden*, a book of essays on telepistemology—the study of how we understand "reality" when our perception is mediated by technology. Telepistemology as an area of scholarly discourse is being pioneered by none other than Goldberg himself.

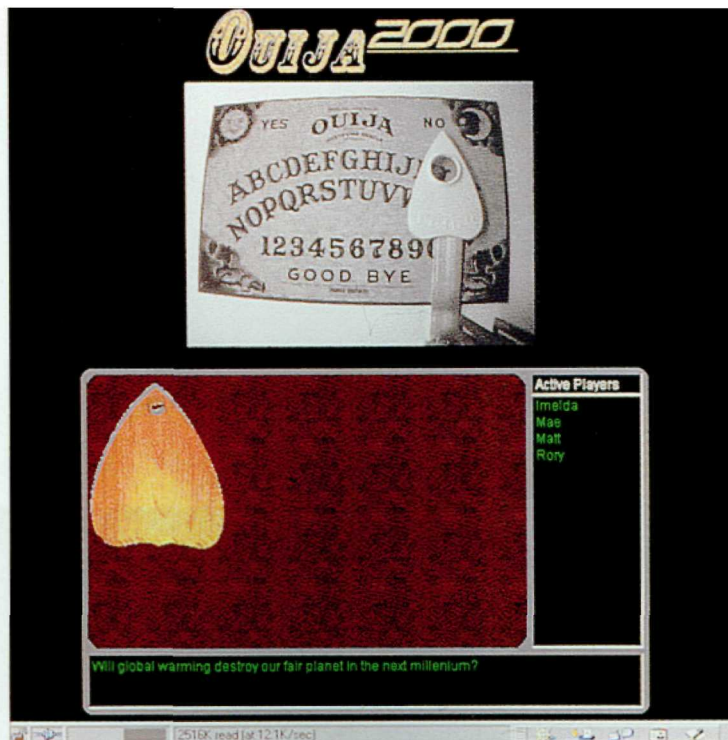
Yet Goldberg somehow finds time to make what writer Jillian Burt, in the 1998 book *Telecommunication and Web Art*, declares some of "the most intellectually substantial art works since the inception of the World Wide Web."

*The Mercury Project* (1995) was one of Goldberg's first Internet installations to gain widespread attention. In this telerobotic work, viewers were enabled to excavate for buried artifacts from the comfort of their desktops. *The Telegarden* (1996) followed. *Legal Tender* (1996) <counterfeit.org> turns site visitors into "criminals" if they dare deface U.S. currency from afar; thanks to—you guessed it—a telerobotic system designed to mutilate a dollar bill. And *Memento Mori* (1998) <memento.ieor.berkeley.edu>, a Java interface to a live seismograph measuring the volatile Hayward Fault in California, translates the earth's constant movements into a heartbeat monitor's jagged wave.

More recently, Goldberg has been taking his Internet-based artwork out of the computer's beige box and into the art gallery's white cube—creating viscerally-arresting work. *Dislocation of Intimacy* (1998) is a sculptural, giant black steel box containing lights and fans—both of which could be controlled by those logging on to an accompanying Web site (now offline). When online viewers manipulated the lights and fans from afar, the box, which was displayed at San Francisco's Catharine Clark Gallery, would appear to be breathing. And *Mori* (1999), currently on view at the ICC Biennale in Tokyo, is an update of *Memento Mori*. The original Web site is now showcased on a monitor placed, facing upward, in the floor of a dark, cave-like chamber. In the chamber, viewers hear a disturbing symphony of waves crashing and rocks falling—programmed by sound artist Randall Packer to coincide with the real-time seismic activity.

Goldberg's latest work, *Ouija 2000*, refers to the occult-inspired Ouija board game. Those who visit the Internet portion of the installation (the site opens in January) can ask "yes" or "no"





Left: Ken Goldberg, *Ouija 2000* (detail), planchette.

Below: *Ouija 2000* booth installation.

questions along with other simultaneous, real-time site visitors. All site visitors are instructed to use their mouse like a Ouija board's planchette—an action that triggers a robotic device hooked up to the Internet that points toward the letters that spell either “yes” or “no” on the Ouija board interface. An accompanying physical installation resembling a fortune-teller's stand will be on view at UC Berkeley's University Art Museum, where Goldberg will allow the curious to visit the robot responsible for the Ouija board's answers—lit in an ominous, creepy manner, Goldberg says, to increase dramatic effect. The Ouija board's answers are based not on channeled responses from evil spirits or a complicated new software program, though, but instead are calculated along the principles of the central limit theorem, which states that the distribution of the sum of a large number of independent, identically distributed variables will be approximately normal, regardless of the underlying distribution. This theorem was first formulated by the mathematician A. De Moivre in 1733.

“If we became purely digital, and we believed we could invent our own new worlds, well, that would be dangerous and delusional. I see the physical world as grounding,” says Goldberg, explaining why he chooses to incorporate physical components to his Net art. “After all, we still have the same body and instinctive reactions. Our basic instincts are still operable. With all of the changes in technology over the centuries, our fears and desires have been left unchanged.”

Goldberg has cultivated what he calls a “sober perspective” that he hopes ultimately will be communicated in his poetic, haunting, and highly engaging artwork. “I'm critical of technology. That's implicit. When you're so close to it, as I am, you can see the darker places,” says Goldberg. “And I choose to illuminate them.”

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