

# sculpture

April 2011  
Vol. 30 No. 3

A publication of the  
International Sculpture Center  
[www.sculpture.org](http://www.sculpture.org)

**Frank Stella**  
**Christian Boltanski**  
**Eduardo Kac**



\$7.00US/CAN





# sculpture

April 2011  
Vol. 30 No. 3  
A publication of the  
International Sculpture Center



36



30

## Departments

- 14 **Dennis Oppenheim: An Appreciation**  
*by John K. Grande*
- 16 **Itinerary**
- 22 **Commissions**
- 72 **ISC News**

## Reviews

- 65 **Banbridge, Northern Ireland: "Material Worlds"**
- 66 **Baltimore: Sculpture at Evergreen 6**
- 67 **Boston: HarborArts**
- 68 **New York: Jedediah Caesar**
- 68 **New York: Rashid Johnson**
- 69 **New York: Jay Kelly**
- 69 **Cleveland: Willard Tucker**
- 70 **Seattle: Catherine Grisez**
- 71 **London: Maria Nepomuceno**

## Features

- 24 **Action and Spatial Engagement: A Conversation with Frank Stella** *by Klaus Ottmann*
- 30 **Magdalena Abakanowicz: Allegories of Time** *by Robert C. Morgan*
- 36 **Inside the Worlds of the Dead: A Conversation with Christian Boltanski** *by Jan Garden Castro*
- 42 **Yoshitomo Nara: Making Space for Misfits** *by Janet Koplos*
- 48 **Nothing is More or Less Alive: A Conversation with Eduardo Kac** *by Carrie Paterson*



70

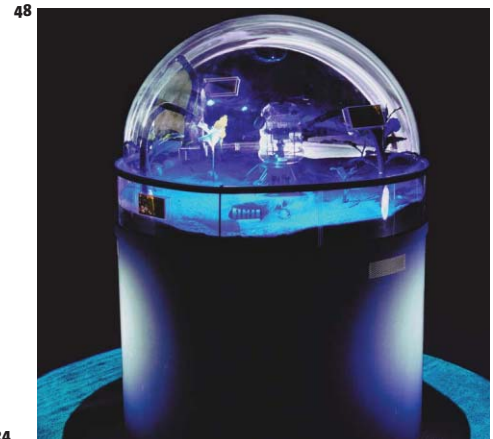


42

**On the Cover:** Frank Stella, *K.25*, 2007. Fiberglass, foam, and steel, installation view. Photograph: Courtesy Gary Nadar Fine Art, 2007.



24



48

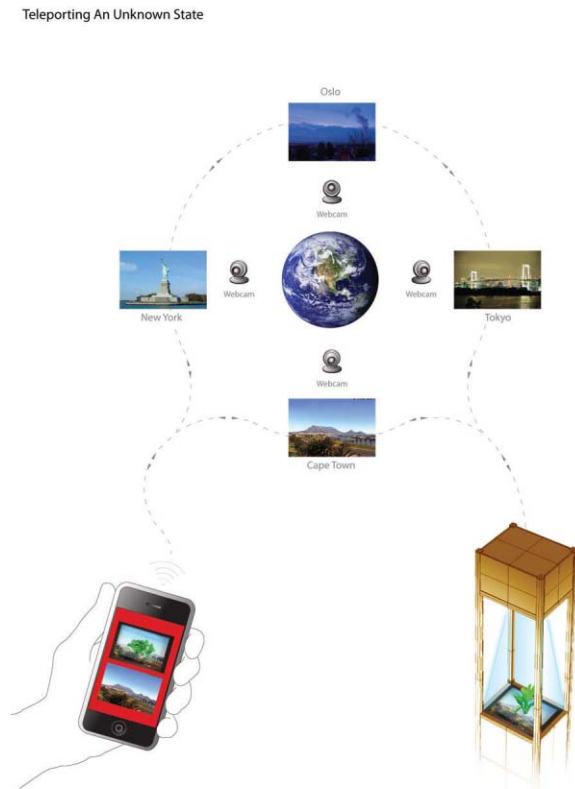


# Nothing is More or Less Alive

A Conversation with

## Eduardo Kac

BY CARRIE PATERSON



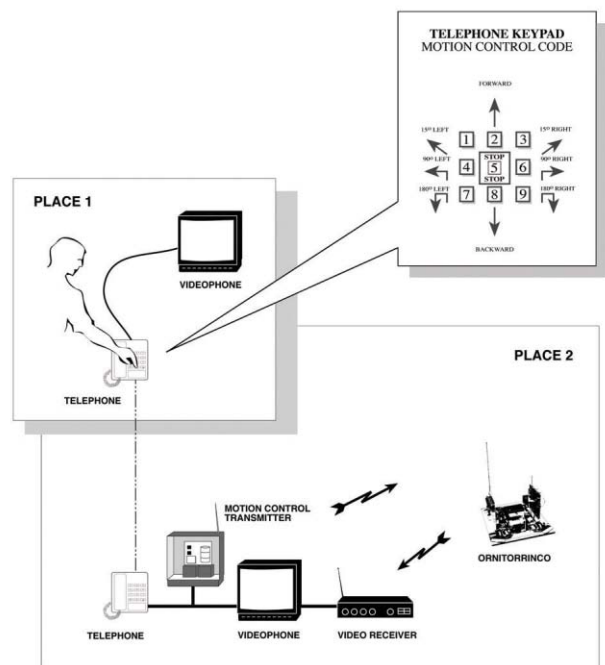
Since the early 1980s, Eduardo Kac (pronounced “Katz”) has created challenging combinations of the biological, the technological, and the linguistic, raising important questions about the cultural impact and ethical implications of biotechnologies. An innovator and pioneer of forms, he began experimenting in the pre-Web ’80s with works that used telerobotics — systems of remote communication linking software, invented hardware bodies, and live creatures with humans. Telerobotics and “telepresence” — his term for the human embodied experience of these works — emerged in wider view in the 1990s, preceding even more radical work in bioart. In addition to transgenics, bioart also includes the biotechnological, in which biology and human networked systems cooperate in synergy toward new modes of expression in living beings.

Kac’s work addresses issues that we all struggle with today, especially in regard to the place and impact of humans within ecosystems. His bioart confronts received ideas about evolution, human/animal relationships, and human/plant communication, offering new perspectives on the confining binary thinking that considers “self” and “other” as intractable categories. Through his practice, we see ourselves as components of larger organic systems that include non-humans, transgenic creatures, and our own technology.

Opposite: *Teleporting an Unknown State*, 1994/96. Telepresence work with live plant, Internet, server, video projector, and Web cams, dimensions variable. Above: Connectivity diagram.

COURTESY ESPACIO FUNDACIÓN TELEFÓNICA, BUENOS AIRES





Kac's work has been exhibited worldwide and is part of the permanent collections of the Museum of Modern Art in New York, the Museum of Modern Art of Valencia, Spain, the ZKM Museum, Karlsruhe, Germany, and the Museum of Modern Art in Rio de Janeiro, among others. He has several solo exhibitions planned for 2011, at the Richard Massey Foundation in New York; the Centre des Arts in Enghien-les-Bains, outside of Paris (through April 10); and the Centro d'Arte Contemporanea in Turin. He has also written and edited several books on bioart and has received multiple grants and awards, including the prestigious Golden Nica Award from Ars Electronica (2009). His work is documented at [www.ekac.org](http://www.ekac.org).

**Carrie Paterson:** *Is bioart experiencing its coming of age?*

**Eduardo Kac:** Bioart will need decades to complete the initial process of arriving. More discourse and practice, as well as a basic repertoire of works, need to be established to define the field. Most critical discourse has made little room for bioart, its concerns or its forms. A space has been opened for it, but it's still far from the mainstream.

**CP:** *Where do you see yourself situated within the disciplines of art and science?*

**EK:** There is a general perception that I'm a science guy—but I'm not. I have no specific investment in science. Poetry and philosophy form the axis of my work.

**CP:** *Can you clarify what you consider to be the crucial differences between art and science?*

**EK:** Science is based on hypothesis, testing, and development of truth, and most importantly, the repeatability of this procedure. Art is a singularity. Art is about what happens at that very moment when we create it or experience it.

**CP:** *How do you understand the two disciplines to interact, and how do they collaborate with each other? It strikes me that while many artists use science as a jumping-off point for philosophical and aesthetic investigations, what you do is different.*

**EK:** I don't see myself involved in a conversation between art and science. I simply make art. Many artists would be perfectly happy to make a series of works "about" a phenomenon, and most

Eduardo Kac and Ed Bennett, *Ornitorrinco*, 1989. Telepresence work, installed at the Art Institute of Chicago and connectivity diagram.

audiences are comfortable with that procedure. But representations of an idea are far removed from life forms. When a bioartist creates life, it is not a metaphor; it is literal. Bioart undoes the metaphoric system of art. Of course, since at least the late 19th century, artists have been questioning conventional representation. Magritte's *Ceci n'est pas une pipe* is a radical attack on the semiotics of art. Bioart, however, has a radical *materiality* at its core. It's not to say that language can be rid of metaphors—our thought process cannot escape metaphor. But, to be clear: the practice of bioart is not the creation of visual metaphors; it is the creation of real life.

**CP:** *You have mentioned that sometimes your work is erroneously thought of as narrative, because of the written components. Why is this inaccurate?*

**EK:** We should not confuse the effects of descriptive or analytic language with the sensorial experience of the work. Language is linear—like a chain of command. When you are experiencing the work, no words are necessary, everything is simultaneous. In my works of holopoetry, for example, you have to read with your whole body. It's a very fluid, unstable experience of language, and this creates a poetic experience that is irreducible to any other medium.

**CP:** *Your telepresence project Ornitorrinco, which you started in 1989, dissolves the need to use language to encounter another body, and the viewer literally inhabits this other body and communes with it. Why did you call the robot after the platypus?*

**EK:** I wanted to signal "hybridity." The platypus is perceived by the general public as being a hybrid between a duck and a beaver, but it's not. It is itself. We don't need to decompose the animal into two familiar, harmonious parts to understand it.

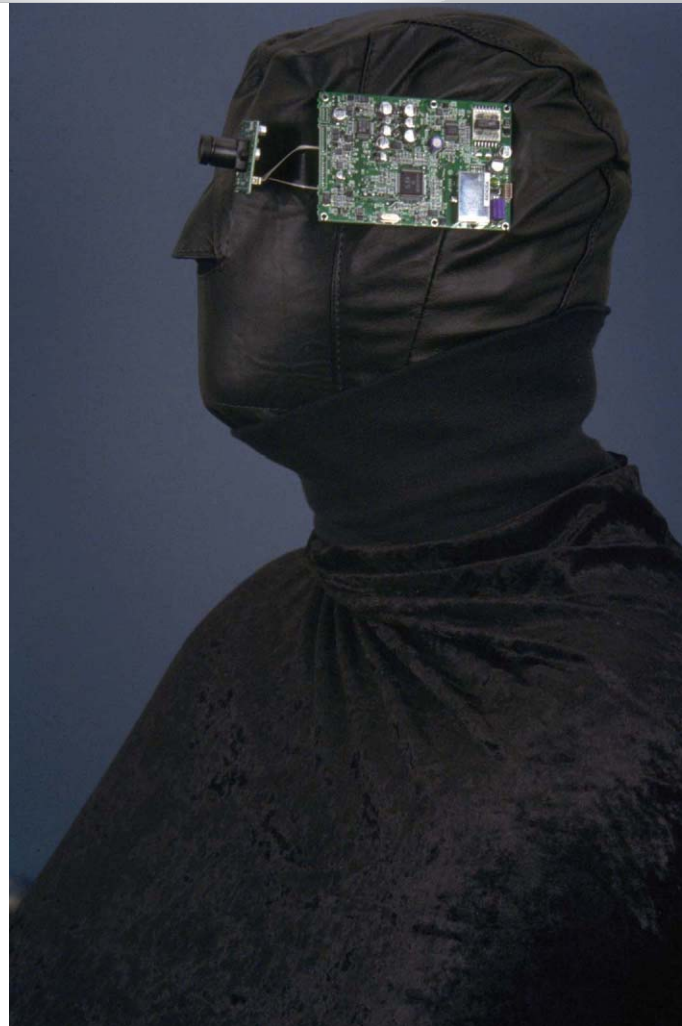
**CP:** *The body of the robot doesn't make any formal reference to the animal, correct?*

**EK:** *Ornitorrinco* is a completely invented body. It's not meant to represent that hybrid; it is itself a new hybrid.

**CP:** *Your use of the word of "signaling" seems appropriate con-*



Above: *GFP Bunny*, 2000. Transgenic work featuring Alba, the fluorescent rabbit. Right: *Telepresence Garment*, 1995/96. On-line telepresence work with wireless telerobotic clothes, dimensions variable.



sidering the development of what you have referred to as "Internet ecology." Can you explain the nuances of that term?

**EK:** By "Internet ecology," I mean two things: first, my work has always merged two entities often perceived as disparate, namely nature and technology; second, the network is an ecology in the sense that it is a shared finite resource, like a physical environment.

**CP:** And *Ornitorrinco* was created for a very specific environment.

**EK:** Yes. *Ornitorrinco* was born to exist in a ubiquitous network environment.

**CP:** How does the displacement of human consciousness into this environment affect participants in the work?

**EK:** My hope with *Ornitorrinco* is that you experience certain insights: that you can entertain multiple subject positions, that these subject positions are fluid, and that you can navigate them. *Ornitorrinco* is not a simulation. It is a stimulation. It's not about using robots to experience things that we can do already. It's about creating new modalities of presence.

**CP:** Is this where your concept of "telepathy" originated? Where the viewer is immersed in the environment of the "other"?

**EK:** No, that came from *Telepresence Garment*. It's the opposite gesture from *Ornitorrinco*. When you wear the garment, you become the telerobot. Other people are in *your* body. If I perceive the potential for a system to become locked into "self" and "other," I will undo it.

**CP:** In *Telepresence Garment*, you inhabit an environment controlled remotely by others. You get input through an audio receiver, and you enable the act of vision through a small camera attached to your left eye, but you can't say anything or see because you are bound in a constraining fabric.

**EK:** You become a sort of cell.

**CP:** The other person sees from the perspective of *Telepresence Garment*. Is this how telepathy is created, or does something besides the visual drive this connection?

**EK:** The remote participant present in your body sees through your eye and whispers directions in your ear. You've lost almost all sensorial feedback. The other who is in your body now has to take care of you.

**CP:** So empathy arrives through the act of caring for the "other"?

**EK:** Caring for and putting yourself in the position of the other, in spite of the distance.

**CP:** Teleporting an Unknown State, which you began in 1994 and presented in 1996, extends the concept of telepathy to non-humans. This piece required a cooperative community of Internet users with Web cams to broadcast light from the sky to a seedling in a gallery in New Orleans. Tell me more about how this piece connected viewers to the life of the seedling.

**EK:** Without the photons from the social network, the plant would die. When viewers walked into the gallery, they could not see the projector that was transmitting the sunlight, only its cone of light coming through a circular hole in the ceiling onto the seedling on a bed of earth. The circularity of the hole and the projector's lens were evocative of the sun breaking through darkness. Then, the slow process of plant growth was transmitted live to the world via the Internet for the duration of the exhibition.

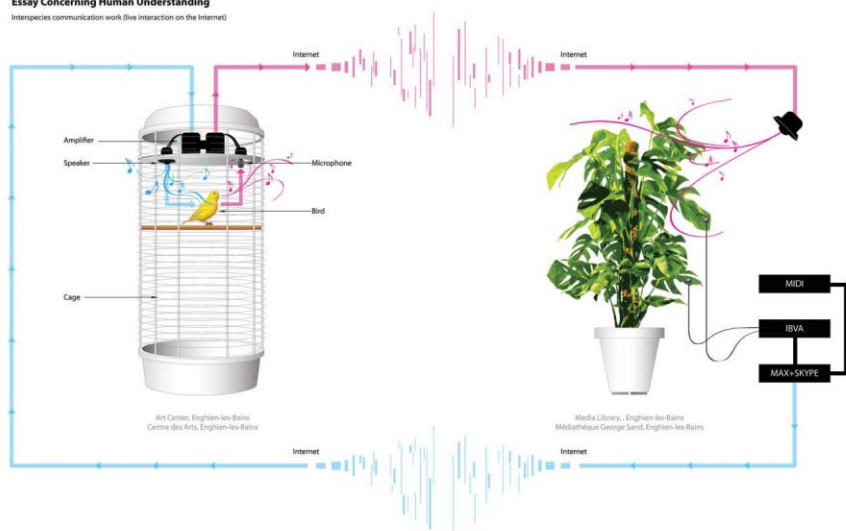
**CP:** This is another example of "Internet ecology." I'm curious about how these two systems come together. Is there a historical reference that unites flora and the Cartesian grid that we have come to develop as the global mapping device of the Web?

**EK:** Do you know *La Mettrie*? In *L'Homme Plante* (1748),





**Essay Concerning Human Understanding**  
Interspecies communication work (live interaction on the Internet)



he proposes an equivalency between man and plant. He writes about alternate methods for locating subjectivity, beyond Descartes's mind-body dualism. He opens up the Enlightenment.

**CP:** *La Mettrie relates to your Essay Concerning Human Understanding (1994), which is included in your show "Life, Light & Language" at the Centre des Arts outside of Paris. How is the piece exhibited?*

**EK:** At one location, there is a bird in a cage, which sings through the Internet, and another facility houses a plant on a pedestal. The plant is exposed to the singing of the bird and, in response, produces sounds that are transmitted back to the birdcage.

**CP:** *I was interested to read in the Leonardo Electronic Almanac that you monitor the plant's vital signs using electrodes and translate its responses to the bird song using software originally designed for people.*

**EK:** Yes. The program was designed to detect human mental activity, but here it is employed to inspect the vital activity of an organism generally understood as devoid of consciousness.

**CP:** *So, the plant becomes a mirror for the human consciousness observing it. But the piece is a closed-loop system in which humans cannot directly participate, correct?*

**EK:** I will not discriminate against humans, but the work is for the bird and the plant.

**Above:** Two views of *Essay Concerning Human Understanding*, 1994. Networked interspecies communication with live, bi-directional, interactive, remote sonic exchange between a bird and a plant, dimensions variable. Left: Connectivity diagram.

**CP:** *This is a beautiful idea—to create systems of aesthetic exchange that go beyond human sensory capacity and involve the living presences of other beings, as well as their well-being. How did you arrive at this concept?*

**EK:** I started to ask myself a string of questions. What could art be like if it recognized possibilities for sensorial experience other than the human, if we created art for non-humans? Would we be able to identify aesthetic experience in non-humans? If so, would we not be able to learn from these creatures and create other kinds of art for humans? Understand the richness of the non-human world and recognize aesthetic experience that is particular to them? This is the challenge that I presented to myself about 20 years ago.

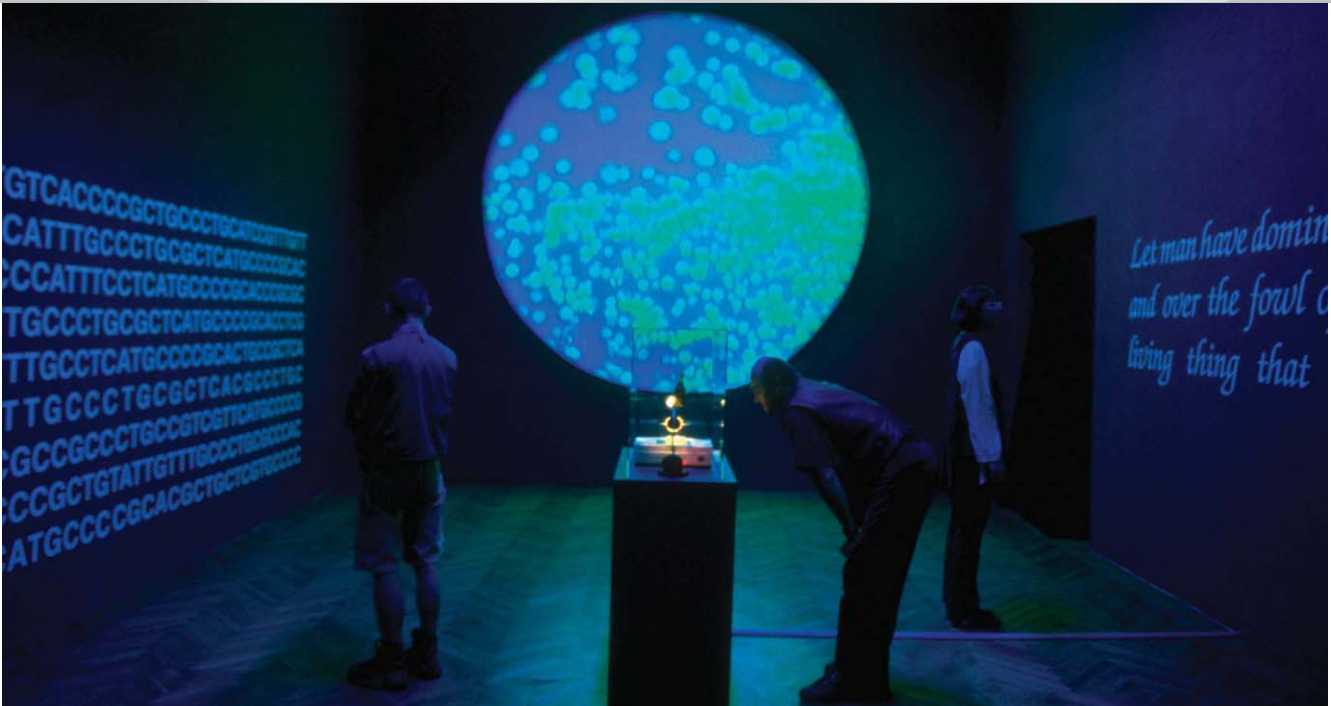
**CP:** *We haven't talked about Genesis yet, and perhaps this is a good segue—the idea of a creature experiencing the aesthetics of its environment in its own way. I'd like to focus on the literary idea of the textual body as it becomes conflated with the Genesis bacteria. In Genesis and other works of bioart, do you mean transgenic creatures to be considered as "living literature"?*

**EK:** Texts do not exist until they are in the environment for which they are written, which in the case of bioart is a living organism. When texts are encoded as DNA, they realize themselves as functional genes in a living body. So, in this sense, yes.

**CP:** *But do you consider the bodies of the Genesis bacteria as texts?*

**EK:** I don't. The text is the part that I write and both humans and bacteria mutate; I create the text specifically for that environment—the bacteria body. It is in the service of the living.

**CP:** *The Biblical text translated and transmuted by*



*Genesis, 1999.* Transgenic work with artist-created bacteria, ultraviolet light, Internet, and video, installation view.

*the bacterial body is the so-called “dominion passage.” Others have questioned your use of this excerpt in terms of what it might suggest ethically, about humans manipulating or having control over other species. What is your response to that line of thinking?*

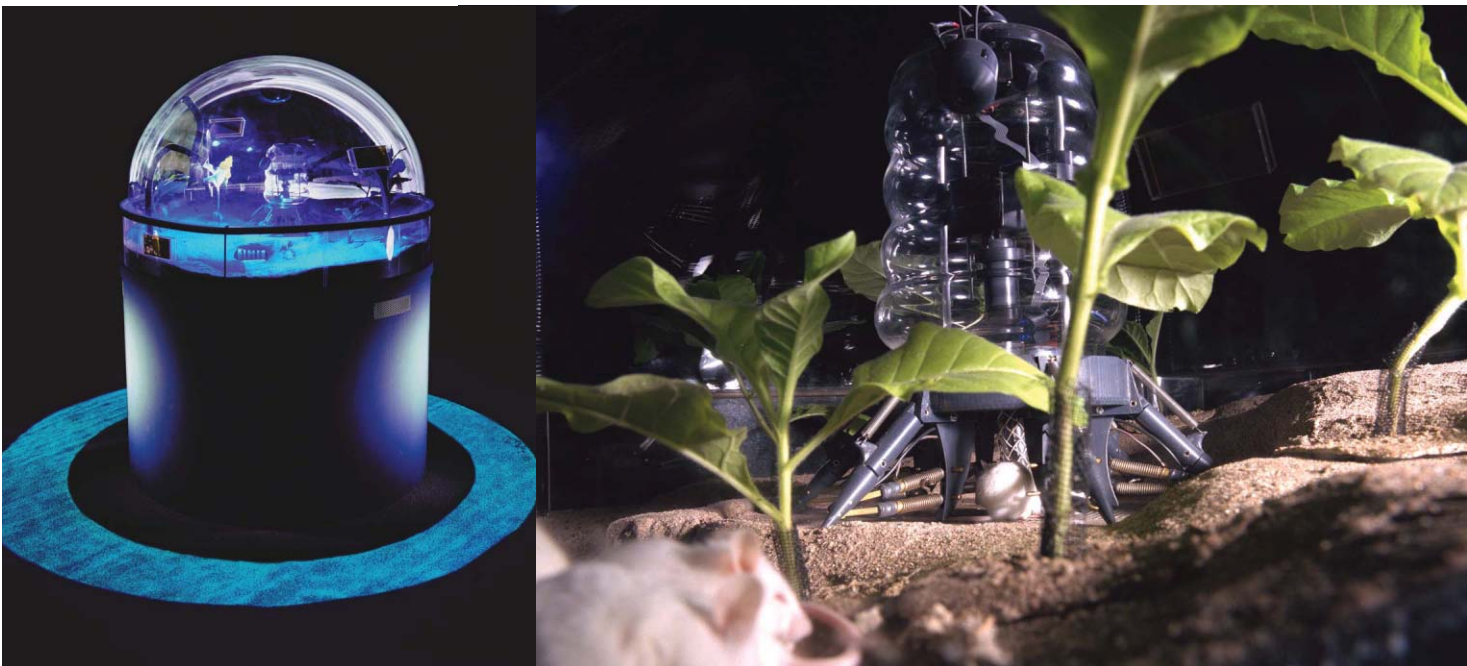
**EK:** In terms of ethics, any human being who believes that we have any power over bacteria is full of himself or herself. In the event of a nuclear holocaust, bacteria

would live on, and evolution would continue anew. The extra-biological feature of containing a text, and that this process creates a chimerical figure—all of this is a relatively small gesture when you consider life on earth and evolution. There isn’t a sense of control or dominion over bacteria. The work asks whether we are *their* minions.

**CP:** *You’ve commented before on the fact there are 10 times more bacterial cells in our bodies than human cells. This is really hard to imagine.*

**EK:** We have 10 trillion human cells and 100 trillion bacterial cells, and we would be better described as a symbiotic unit, or a network. We are ambulatory ecosystems. One thing we have learned from the genome project is that we have to look beyond the chromosome to the “hologenome.” What we are in the world is a consequence of our co-evolution with the bacterial cells in our body, and with viruses. The transgenic has historically

*The Eighth Day, 2001.* Transgenic work with biobot, GFP plants, GFP amoebae, GFP fish, GFP mice, audio, video, and Internet, dimensions variable.



TOP: OTTO SAXINGER





*Cypher*, 2009. DIY transgenic kit with Petri dishes, agar, nutrients, streaking loops, pipettes, test tubes, synthetic DNA, and booklet, 13 x 17 in.

careful if you extrapolate the killing of the bacteria after the art exhibition into other spheres. If I wash my hands, I kill bacteria. The clear problem is in the rhetorical gesture of deliberately confusing say, bacterial killing, with other kinds of killing, not in the use of biomedica.

**CP:** *I'd like to hear more about the larger political implications of this part of your practice.*

**EK:** Politics is about relations of power: who has the power, who controls it, and to what end. Discourse is used politically to control hearts and minds. We are living in the age of what Foucault called biopolitics: the moment in history when governments control biological systems. What kind of control is handed over to a company like Monsanto, to the detriment of the environment? There is no positive outcome except to the shareholders of the corporation. So, when an individual (the artist) creates work that defies the logic received from the dominant political and economic system, the work clearly states that the world can and should be a different place.

**CP:** *Cypher (2009), a home kit for transmutation of one mysterious poetic line, continues with "performative ethics." Can you give an overview of the kit?*

**EK:** *Cypher* brings together my different interests, from the construction of the kit to the code. The sculpture is completely handmade. It opens like a book and has a booklet inside. The centerpiece is a poem encoded in the DNA inside bacteria in a vial, which is translated into English in the booklet.

**CP:** *How do you engage language differently in *Cypher* and *Genesis*?*

**EK:** In *Genesis*, I made a code, a conversion principle to translate biblical text that exists outside the code. In *Cypher*—the text is the code; the code is the text.

**CP:** *It reminds me of a Flux Kit.*

**EK:** It's unrelated to Fluxus because all the technology is literally at your fingertips. It's a mini-lab—not for contemplation, but for action. There is a political dimension in the DIY aspect of the kit. Are you prepared to

been figured as the monstrous "other." But we now know that we have genes from bacteria and viruses in our chromosomes. When we look at ourselves in the mirror, we should realize that we have always been transgenic.

**CP:** *Recognizing this would encourage a new kind of empathy for transgenic creatures, particularly those who arrive through your work to challenge our semiotic system. How would you like people to engage with *Genesis*, for example, in terms of empathy?*

**EK:** I'm trying to develop empathy in simple ways—you look at the other, and you perceive your relationship to the other. The *Genesis* bacteria did not exist in the world before I created them. In the gallery, they glow and you glow, because in addition to the special UV light for the bacteria, I also use regular black lights. Through this mutual glowing, you stop looking at bacteria as different and notice similarities. This is a starting point, and everything else flows from this.

**CP:** *Once this transgenic creature presents itself, there are new ethical dilemmas. You have written about "performative ethics." Can you explain this term?*

**EK:** "Performative ethics" is not meant in the sense of performance art, but in the sense that it involves your actions—it is ethics in action. The ethical imperative is intrinsic because the work is alive. One could say that ethics is or should be a concern in every sphere. But you have to be careful because that statement assumes that everyone has the same definition of the word. The same problem exists for the word "beauty." One could say that, in art, ethics should somehow be a part of aesthetics—however, when you are dealing with real life, ethics cannot be an afterthought. You are creating a living creature no less alive than yourself. It may not have neurons, but it is not less alive. There is no "more" or "less" alive. This is the first thing a bioartist has to recognize.

**CP:** *What about the whim of the creator? Can you kill something that you've made when you believe it's appropriate, for example, after *Genesis* has been shown and the exhibition comes down?*

**EK:** Yes, you can kill something, but you have to take this on a case-by-case basis: apply the logic of your garden to people and you would have a holocaust. You have to be very



Above and detail: *Move 36*, 2002/04. Transgenic work with artist-created plant and digital video, dimensions variable. Right: *Natural History of the Enigma*, 2003/08. Transgenic work with Edunia, a plantimal with the artist's DNA expressed only in the red veins of the flower, dimensions variable.

do this, or are you not, and what does this mean? You are taking things into your own hands. This signifies a counter-gesture. If an individual carries out this gesture and shares this opportunity with others, the work is pregnant with possibility.

**CP:** *What you're saying relates back to the ethics question. When you ask viewers to empathize with the position of the bioartist and to have some responsibility for the bioart that they create, they also must answer the ethical questions in the first person. But let me ask you a different question—in terms of poetry, what does the kit ask of the user?*

**EK:** The kit asks if you are prepared to engage with another modality of art and poetry that doesn't conform to the traditional readerly act. You're invited to literally give life to the poem.

**CP:** *All codes are meant to be transmitted and read. They are secret and imply an imperative for reading the text. What is the imperative implied by the kit, if it departs from the standard experience of being a reader?*

**EK:** To engage in a first-person perspective with these technologies. Otherwise you leave them in the hands of others, and you will always be the recipient of those narratives. You will never be able to philosophize with a hammer, to sound out the idols, to seize the tools to come up with your own narratives.

**CP:** *Would you situate yourself within or perhaps adjacent to 21st-century practices like experimental philosophy and field philosophy?*

**EK:** I'm not a philosopher, I'm an artist. But, I have said that art is philosophy in the wild. The kind of art that



I'm interested in making is engaged and transformative of the material world. Art is philosophy in action. Consider Edunia, the flower that I created for my transgenic work *Natural History of the Enigma*. That flower, as an ontological hybrid between plants and humans, is now there, and the community of life opens and welcomes it. It's a double gesture—both poetic and philosophical.

**CP:** *The handmade paper sculptures in Edunia Seed Packs take the form of winged creatures—like butterflies or bats. They seem to reference transformation and sensory perception beyond human capacity. Why did you choose these forms?*

**EK:** I don't see them as winged creatures. You could, for example, say that they open like books. I think that they can be different things for different people.

**CP:** *Is there anything else you want to say about your central concerns as an artist?*

**EK:** It's important to open discursive space, but not lock yourself in. We need to be aware that everything is in perpetual transformation. We have to develop modes of existence that are comfortable with this state of flux.

*Carrie Paterson is an artist, writer, and independent researcher based in Los Angeles. She teaches in graduate studies at Cal State University and contributes to a variety of art and culture publications.*