No Eden Under Glass:
A Discussion with Donna Haraway

By P.K. Jamison

In February of 1991, feminist philosopher of science Donna Haraway presented two lectures, "The Theory in the Figure: Feminist Figurations for Unmanly Worlds" and "Science, the Very Idea! Feminist Diffractions" at Indiana University, Bloomington, sponsored by the William T. Patten Foundation.

Haraway attended Catholic schools where she acquired "a passion for biology, religion, and politics" that led to interests in English, zoology, and philosophy. Taught by "very committed and talented women" in a girls' high school, Haraway was later influenced in college by individuals like Barry Commoner who "pulled together ecological and anti-war concerns with approaches to organisms as objects of study." Of her own work, Haraway says:

> Crystals, Fabrics, and Fields came out of a strong anti-reductionist polemic. It was a revision of my dissertation, done jointly for biology, philosophy, and history of science departments at Yale. Primate Visions is the fruit of a decade of coming to terms with how people in the cultures that nurtured me, for better and for worse, produce accounts of species and cultural origins and relations to other animals in the context of the histories of male dominance, colonialism, and post-colonialism. The book's subtitle — Gender, Race, and Nature in the World of Modern Science — is a statement of the motivating factors. Simians, Cyborgs, and Women is a collection of essays written from 1978 to 1989, motivated by feminist movement,addressed to science as cultural practice.

Throughout Haraways work, there is a thread that connects her interest in philosophy, scientific thought, and practice with an examination of "narrative" and "image." For example, in the study of primates, Haraway maintains that the traditional portrayal of the female "figure" as shy and passive is disputed by women scientists who are making major contributions to ideas about the social construction of "animal" and "human." In her essay "A Manifesto for Cyborgs . . ." (1990), and in her Patten lecture at Indiana University, Haraway satirizes the notion that science is objective; moreover, she opposes the concept of a universal theory of reality. However, she openly embraces (and takes pleasure in) technoscience, while remaining critical of those who simply dismiss it without careful examination. Haraway proposes that the interaction of humans, science, and technology maps a continued story/narrative of disassembled and reassembled" positions that are to be engaged, shared, and negotiated. "Plays of difference"

become collective images that should connect (rather than divide) the relationships of race, class, sex, and human and machine.

Our discussion focused on the need for critical, yet meaningful, projects in technology and science, and on Professor Haraways frustration with the inability of some individuals to find pleasure in such projects. For Haraway, critical projects in any discipline require that the persons involved in them "play with language." In this way, Haraway argues, individuals are more likely to question the divisions and representations present in language, figure, and narrative conventions. Looking through myriad disciplines, Haraway maintains that the divisions between "humans and nonhumans," "nature and culture," and "science and technology" must be interrupted in order to understand that in our lifeworld there is no Eden under glass.

DH: I just came from a discussion with students who are studying the history and philosophy of science. I thought I would be able to rely on their taking pleasure in the language that I am trying to use . . . And, I swear, I don't understand what the block to pleasure is.

PK: Do you think it, in part, has to do with the philosophical tradition they come from?

DH: Yes, but . . . that still doesn't answer the question. It's not true that nobody takes pleasure in that kind of language, but, on the whole, that's the hardest group of people that I talk to in audiences. In terms of leading them into having a good time with it. In seeing that particular kind of critical work, the kind of "joking" structure of a talk like the one last night as part of an analysis, rather than instead of an analysis.

PK: In the past year, I have tried to get [educators] to think of technology as a metaphor, [rather than only] as a tool . . .

DH: Yes, in some sense, you can use or abuse a "neutral" tool. But to think of technology as a poesis, as a meaning making process, as a way of embodying meanings, is to take another kind of responsibility.

PK: As a kind of project . . . there is a tendency to [focus on] the technical abilities [of technology] instead of looking at other possibilities.

DH: It seems to me that technology is so obviously allied with poetry . . . it seems so self-evident to me that it's hard now to explain it to someone who doesn't regard

that as pretty clear. I don't remember any longer how to explain why that is the case.

PK: Most do not see technology as a human activity [either] . . .

DH: Or, if they see it as a human activity, then they tend to see it in entirely instrumentalist and rationalist terms, as a deliberative human activity for certain ends and so you design in certain ways. But, they tend not to see it like an activity as cultural production, as the production of meaning, as an embodiment of a way of life, in that sense *poesis*. It's very hard, in my experience, to communicate that idea.

PK: Do you think that part of the problem is a detachment . . . or a division between what is [often referred to as] "social reality" [in contrast to] what is "lived reality?" In such a way, that [the study of technology is an activity different than the] "lived" experience [of technology]?

DH: Yes, and you tend to think of society as "somewhere else." It's a very odd way of making "society" a kind of wastebasket category.

PK: It [is] problematic, because if [one views] technology only as a tool, and then [detaches the study of it] from the [lived experience], the projects in technology [being developed to] solve [social/educational] problems . . . can't possibly [resolve the problems] because [the technology has been] detached . . . from the experience.

DH: . . . and you've forgotten that the process of constructing a particular technology is itself a sociotechnical process . . . that that "and" word between science and technology is an illusion.

PK: I thought a field such as science studies would come to terms with such ideas . . . more than my own field, educational technology.

DH: Well, I know very little about how educational technology people talk to each other in this regard. Many people in science studies are concerned about these ideas, but many also are not.

PK: In education, the ideas and language of "science and technology," have continuously been discussed and applied [in areas such as testing, classroom management, and learning development], but the application of these ideas to practice has been largely a concern with "what to do" to solve problems in education without ever thinking about what the problems are and why we have them.

DH: . . . and how [the problems] come to us in certain prepackaged forms, and how do you crack open what counts as a problem in order to think a little differently? Let me back up to the root meaning of the word "*techne*," the organization of skill, that if you think of technology as a particular set of procedures, some of them embraced in stone, and metal, and wire, and paper, and electrical circuits, and some of them embodied in ways of using words, in protocols . . . bureaucratic protocols of different kinds, some of them embodied in body motions, in the different conventionalized ways of making people . . . of moving people through a kind of obligatory passage point, so that a technology becomes a
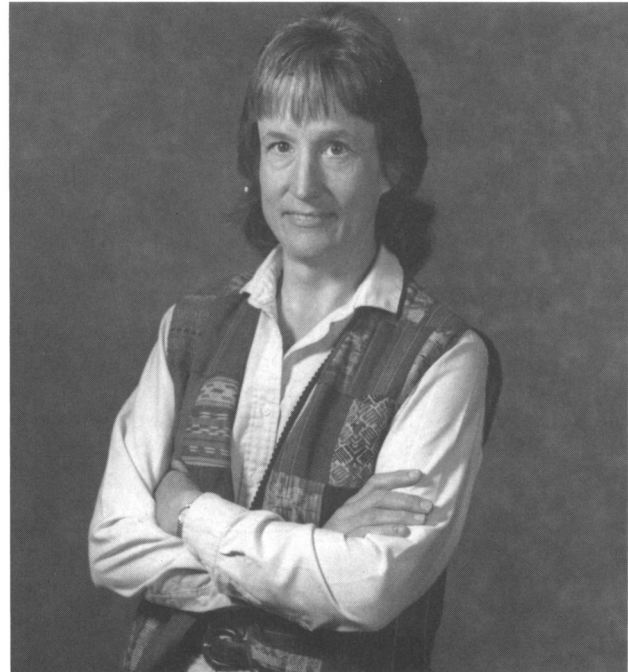
Donna Haraway. (Photo courtesy of Office of Public Information, University of California, Santa Cruz.)

point of passage through which people have to move. It constrains and enables possibilities. Anything that constrains possibilities in and of itself enables some . . . and so that if you start thinking of technologies as ways of organizing forms of life and that they have built into them commitments to certain kinds of ways of life, not others, so they enable some ways of living with each other rather than others, you start inquiring into technology as a "lifeform." Some interesting branches of philosophy have in fact approached things this way . . . certain kinds of phenomenology have insisted on defining technology as a lifeform and taking that seriously. Certain kinds of radical science politics have insisted on that, certain kinds of feminist work . . . and in the professions of the history and philosophy of science it's not a foreign idea . . . but, it's still very much resisted in odd ways, and I get confused by the resistance . . . I get emotionally confused by the resistance.

PK: In education, it's the same problem . . . and the resistance is there. The field I am in, educational technology, is a very "masculine" field, and most of the people involved in educational technology and instructional systems development are men.

DH: So, it's the hard part of education . . .

PK: . . . when I talk about technology [as metaphor] . . . [I find that many educators do not see how technology and language are related] . . . that the language [of technology] can categorize people in particular ways, or [influence us to see] the world in particular ways . . . [many educators believe] technology [is] neutral or universal . . .

DH: . . . solving a particular problem . . . get computers into the schools, but, what does that mean? Under what kinds of conditions? What kinds of computers?

PK: What does it imply? What are the ramifications? . . . and, also, who gets to decide? When you think about the kinds of texts within technologies, that Dorothy Smith talks about, the kind of "active text". . .

DH: . . . what's scripted in the technology?

PK: Yes, you have to ask whose reality is it? What are you saying about the world when you have a particular piece of software in the classroom? Sometimes I see technology as a white project in schools, a very white male project, to replace the caring and the movements that women recently in education have [begun and carried out] to change the instrumental project in education. Their work is now going to be replaced with this [white male] notion of technology and [the general trend is] "well, we dont need those other projects now."

There is no such thing as modern and nonmodern, any more than there is such a thing as nature and culture.

DH: . . . and you produce a social relationship between a child and a machine, which is a social relationship, and sometimes . . . at the expense of training our abilities in social relationships with each other in noncombative ways . . .

PK: . . . and we displace all the contributions women [through their projects] have made that [help] people think about language and curriculum and awareness . . . now everyone's focus is moving towards [advanced information systems, technology, and restructuring schools] and all the concerns [about gender and education that] women have brought out . . . are being shuffled away . . . and that's tragic.

DH: . . . it's disgusting. Absolutely . . . but, on the other hand, one wouldnt want to end up in the trap of somehow seeing women as instead of, or other than, a particular set of computer technologists . . .

PK: Or not being able to add to the discourse of technology . . .

DH: For example, being actors in the technical scene, not just recipients, or victims, or users, or somehow on the passive end of things. That women are active cultural producers involved in constructing technology.

PK: And it is possible to make technology life-centered, [as well as] power-centered.

DH: Certainly in the abstract you just say yes. But then the real question is where? How? What's happening that's interesting? From your location in educational technology, what's happening that's interesting . . . that's life-affirming?

PK: I see women talking about multiculturalism and technology projects and asking "whose reality is it?" as life-affirming. For example, virtual reality and interactive video technologies are supposedly interactive, but are they really? And is learning really immediate through technology? Is [a virtual or interactive technology experience] really the same kind of experience one has in a lived experience?

DH: . . . and whose reality is it is a very sharp question . . . interactive for whom? Or, what kind of lived experience is that?

PK: Also, one of the projects that I see as critical, right now for education, is to look at those kinds of organizations other than corporate, military, or industrial, namely nonprofit [public service] organizations, women's organizations, organizations that are trying to advocate peace, ecology, also issues about AIDS, about poverty . . . looking at those kinds of organizations as a resource . . . and many of them use information technologies.

DH: . . . and how might their work be facilitated . . .

PK: . . . what kinds of texts do they present? How are their texts different than the ones we normally see in traditional education?

DH: That's important work.

PK: I'm not a Luddite, . . . but I'm concerned that when you buy into technology . . .

DH: Literally, because that's more than a metaphor. [Technology] costs money!

PK: You haven't necessarily sold out, but, I'm not sure you can turn back . . . once you've moved towards a technological age. I'm concerned whether women can alter their potential and their possibilities . . . if you see technology in the classroom as a male figure and not a female figure . . .

DH: . . . and as a white male figure . . .

PK: How would it be a female figure? Or an African American figure or a Hispanic figure?

DH: One of the things I feel pretty deeply in this area is that we dont have a lot of choice . . . that contesting for a kind of world that's liveable, trying to imagine and produce and make possible such worlds, involves us in interactions with machines of many kinds, people of many kinds. This isn't a question of choice, and so, the question is how do we work, not whether we work, in relationship to machines and other human beings in their specific locations? How do we unpack what kinds of lives they make possible? That kind of critical project, so that if you, for example, had the skills of a software designer, you have that particular set of skills and you find ways to connect that with the kinds of projects that make sense to you. What kinds of software would enable the work of a battered womans shelter? What kinds of ways of connecting and networking would make sense to organizations that need to know what each other is doing? In anti-war work right now, for example, what kind of interventions into the media can we, and ought we, be making? How might we use available technology

to make us more powerful actors in anti-war work? We obviously dont control the television stations, the costs are very high. How can we produce powerful images in the public world? How can we make them travel? Those are technical questions in the sense of "How do we organize to do this?" It will involve us in an alliance with machines as well as human beings. Those questions make a lot of sense to me.

PK: You talk about the image of the cyborg. Would you see technology at this point in time as necessary in a feminist project . . . as we move into another technological age?

DH: That's for sure. It's not a choice . . . it's just not a choice. Like it or not . . . and it's not *whether* we're going to be located in the social practices of technoscience . . . it's *where*.

PK: Where are we going? Where do we want to end up?

DH: What kind of world are we participating in, either by complicity, by agency, or victimization, or all of the above? What kind of world is going on here? . . . and who are we in it? . . . and who are *we*?

PK: Right.

DH: I suppose my root belief is that it is not a question of choice and that this is a world that we may very well not have chosen, but it's for sure a world that we live in . . . and furthermore, it's not all hostile. There's a whole lot going on that needs to be identified and affirmed and moved and expanded . . . that we don't do ourselves any favors by working with a kind of Manichaean universe of good and evil, that we don't do ourselves any favors by working with the notion that women are associated with the social world and men with the technical world . . . as if the two things can be set up that way. A lot of people know this. I mean this is not a shocking thing to say, but, what does that mean then in specific? What does that mean when we try to

think of how to develop our work in environmentalism? . . . for example . . . how do we re-figure what counts as the environment and who people, and machines, and other organisms, and the land are with each other? How do we make the world a world of social relationality that includes nonhumans? By which I mean machines and plants, animals and land.

PK: As in Rachel Carson's work?

DH: Well, there is obviously a kind of conversation going on there . . . and it's also a conversation with some of the people in science studies, like Bruno Latour, who has argued that you have to think of social relationality in terms of human and nonhuman collectives . . . and not just in terms of human relationships and the technical relationships . . . that in some nontrivial sense machines are social actors.

PK: That's fascinating . . .

DH: Yes, I think that's a pregnant conception, in fact, and I would push Latour to go a little further in all kinds of ways. What happens if we don't divide the world into worlds of subjects and objects, but think of social relationality as involving heterogenous unequally positional partners, both human and nonhuman? . . . and with time depth? How would we rethink environmental politics? What pushes would that give to ways European cultures, in particular, have conceived of nature? Because, overwhelmingly, if you just think of the history of conservationism, nature has been that which is not human. You go on the hike to get away. You go into nature. Its a place you go to . . . that is not human. It's a very peculiar notion and it does some real damage to environmental politics. When you think of the environment, I mean what is the relationship of the environment to nature? Two complex concepts and there are political implications to how you work that out.

Photo courtesy of Indiana University News Bureau.

PK: Rachel Carson wrote about how she viewed human beings as trespassers upon the landscape because theyve never thought of themselves as sharing a world, they thought of themselves as separate from it . . .

DH: Well, it depends on which human beings of course. It is not true that all human beings have thought of themselves in that way, including not all Europeans. But I think you're quite right that Carson does tend to talk that way . . . and I think that's a mistake . . . and its an important mistake . . . because I think that that's exactly the way in which we figure nature as something "other" than humans. Humans have either violated, or lived with it, or refreshed themselves in nature, or exploited it for resources, etc. But, that nature is something other than culture . . . and that is not any longer acceptable as a way to name what the world is like. It's a colonialist notion, specifically.

PK: When you talk about the division of nature and culture as not being acceptable, how would you discuss that in terms of a project with reference to technology?

DH: One good example that can function as a little story that implies many other stories is a picture in *Discover* magazine a few months ago of a Brazilian Kayapo Indian man with a video camera. The man is in indigenous dress with a very modern hand-held video camera filming a particular logging operation in the Amazon . . . and filming it as part of a project of organizing among the indigenous peoples of the Americas . . . for resistance to logging schemes in their territories, and for intervention into national, international conservation politics.

Now, one way of looking at that picture in *Discover* magazine is to say, "Oh, look at the interesting paradox. There's the nonmodern person using the modern or postmodern technology to preserve a nonmodern way of life." And, I would interrupt and say, "Wait a minute, this is nuts! Youve just reproduced the nature/culture split. Youve located the indigenous peoples of the Americas on the side of nature. Youve figured them to be involved in a boundary crossing by using this video camera. This is all part of the problem, not part of the solution." What happens, instead . . . I'm picking up from people like Terence Turner . . . Susanna Hecht and Alexander Cockburn who wrote *The Fate of the Forest.* Turner is an anthropologist, who is among other things a visual anthropologist. He is interested in the way the Brazilian Indians are using video technologies as part of their work, part of their conservation work, and part of their effort to achieve indigenous control of their own territories. So, what happens instead if you say, "Nature, namely the Amazon, has not for millennia existed independently of people. The shape of the Amazon and the shape of the people . . . they have each co-shaped each other. Each has shaped the other for millennia. There is no Eden under glass. Social nature is the case. Social nature is a better descriptive term than nature and culture." Premodern, modern is not the case either. There are people in heterogenous historically specific relationships with nonhumans, including skills of various kinds, technical objects of various kinds, cameras, hunting technologies, cooking technologies . . . these are not different in kind. There is no such thing as modern and nonmodern, any more than there is such a thing as nature and culture. There are historically specific practices that involve social partners of both human and nonhuman kinds . . . and might that not be a much richer way to think about whats going on and to ask what are the specific issues here? Who are the actors? How is that action working? Where are the inequalities, the equalities? Whose way of life is at stake here? . . . and not separate it off into the primitive other and the threatening modern life? As if the Indian man were engaging in some kind of paradoxical activity by using that camera.

PK: This sounds much like Trinh T. Minh-has writing about anthropologists who go into settings and look at them as though "Here I am, and then, theres you."

DH: That's right . . . the sort of "primitive other". . . the "zoo". . .

PK: Without ever reflecting upon ourselves . . .

DH: . . . and she refuses to be the representative of, or to represent, the one who is different. Just absolutely refuses that whole structure of the "self" observing the "other." And in her filmmaking practice she refuses . . . that's a technological practice.

PK: So, [technology should be seen as taking place in] a social context?

DH: More than context. Forget the word "context." Thats hard for me. It's not about contexts. It's about the constituitive processes. There's no such thing as "science" and technology, and "technology" is in a social context. As if [the social context is] the container holding the thing. But, our language constantly trips us back into that, so I think part of our work, not the whole thing . . . part of our work is language work. It's about learning not how to do that again . . . how to do something else.

PK: . . . and not putting technology into categories . . .

DH: Those categories. I think of Trinh Minh-has film practice and her writing, but especially her film practice, as an intervention on just this set of issues. That teaches us how to see differently, to look at a film differently. It's pedagogic. It's an orthopaedic practice, it trains you up . . . to act in the world differently. It's a semiotic politics . . . it's a politics about semiosis, about making meanings.

PK: Looking at meaning as opposed to form?

DH: That's right. Technology has everything to do with it. Technology is a semiosis. It's a mode, many modes, of making meanings.

PK: And it's ongoing . . .

DH: Absolutely.

PK: Again, the notion, "here is the modern technology" and "there is the old technology" is not [relevant since] people are always using technology . . .

DH: Especially if you divide it into primitive and civilized.

PK: [What is relevant is why it is] useful to a person . . .

DH: . . . and therefore you ask, "What are the human purposes here?" What are the material conditions of possibility? What are the histories?

PK: What are the responsibilities?

DH: What are the responsibilities . . . who, what has travelled where? What is the history in this situation? How do video cameras travel? Thats an interesting question . . . You start asking quite "on the ground questions" . . . you dont demonize the issues into good and bad . . .

PK: . . . and it's hard to unthink that . . . Corlann Gee Bush talks about the myth that technology is seen as "tool, threat, or triumph," and that instead it quite possibly could be all of them.

DH: Well, one thing for sure is that technologies are always both metaphors and tools. They always are *loci* of meanings, condensed packages of meanings. Marx used to think of machines as "dead labor." Which is an extremely powerful argument. By that he meant that social relationships of production are built into machines which enforce certain kinds of social relationships of production, not others. And that, furthermore, past peoples labor is literally built into, reified, and fixed into the machine. When you are working with a machine you are literally in a social relationship with absent others, with dead others, who present themselves to you in a kind of transferred intentionality. Namely, the machine. The machine is a locus of delegated intentionality.

PK: . . . and then it is transmitted to you . . . through you . . . and it also transforms you.

DH: Absolutely it transforms you.

PK: In education, we do not generally talk about how technology does transform people and their experiences. We generally talk about it as something that displays information, or presents images . . . but not how it alters experiences . . .

DH: . . . that it constructs subjects. Film studies people talk about that a lot and theyve done valuable work to bring in other areas of technology studies. The whole notion of understanding how it is that a technical apparatus is a means of producing subjectivities of particular kinds. So, how does the film apparatus work? What is it to be a spectator? How are you produced as one? What kind of social determinations are going on here?

PK: Guy Debord's work . . . what kind of "society of the spectacle" are we creating?

DH: We've just gotten started . . .

PK: But, it's been fun.

DH: Yes, I think we got a lot done in a half hour.

Postscript: Currently, Haraway is a professor of History of Consciousness and a member of the Women's Studies Board at the University of California, Santa Cruz. She continues to cross disciplines in order to more fully explore issues such as the human genome project: she critically questions "what counts as human in transnational technoscience." It isn't often that one has the opportunity to converse with an individual like Haraway who has the vision and ideas that are, I believe, necessary to transform our understanding of the "connected" problems and possibilities of our lifeworlds. I discovered much about education, technoscience, and feminist studies in this thirty minute conversation with Donna Haraway, and for that I am extremely grateful. In closing, the following paragraph illustrates the scope and importance of Haraway's ideas.
(P.K. Jamison, Oct. 1991)

> In the months that followed, the videotape was seen by hundreds of Kayapo on a videocassette recorder hooked up to a gasoline-powered generator. The dramatic footage helped unite the factious Kayapo, who number no more than 3,000 and live in villages scattered across hundreds of miles of central Brazilian jungle. They staged demonstrations at the site of the largest of the proposed dams and in the nearby town of Altamira. And for the moment, at least, they won; within two months of the chiefs' visit to Tucurui, the Altamira dam project was put on hold . . .

from Tech in the Jungle, *by Carl Zimmer*

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