From Donna Haraway's *Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago: Prickly Paradigm Press, 2000).

Emergent Naturecultures

From "Notes of a Sports Writer's Daughter":

Ms Cayenne Pepper continues to colonize all my cells—a sure case of what the biologist Lynn Margulis calls symbiogenesis. I bet if you checked our DNA, you'd find some potent transfections between us. Her saliva must have the viral vectors. Surely, her darter-tongue kisses have been irresistible. Even though we share placement in the phylum of vertebrates, we inhabit not just different genera and divergent families, but altogether different orders.

How would we sort things out? Canid, hominid; pet, professor; bitch, woman; animal, human; athlete, handler. One of us has a microchip injected under her neck skin for identification; the other has a photo ID Studying assisted reproduction practices in San Diego and then conservation science and politics in Kenya, Charis (Cussins) Thompson suggested the term "ontological choreographies." The scripting of the dance of being is more than a metaphor; bodies, human and non-human, are taken apart and put together in processes that make self-certainty and either humanist or organicist ideology bad guides to ethics and politics, much less to personal experience.

Finally, Marilyn Strathern, drawing on decades of study of Papua New Guinean histories and politics, as well as on her investigation of English kinreckoning habits, taught us why conceiving of "nature" and "culture" as either polar opposites or universal categories is foolish. An ethnographer of relational categories, she showed how to think in other topologies. Instead of opposites, we get the whole sketchpad of the modern geometrician's fevered brain with which to draw relationality. Strathern thinks in terms of "partial connections;" i.e., patterns within which the players are neither wholes nor parts. I call these the relations of significant otherness. I think of Strathern as an ethnographer of naturecultures; she will not mind if I invite her into the kennel for a cross-species conversation.

For feminist theorists, who and what are in the world is precisely what is at stake. This is very promising philosophical bait for training us all to understand companion species in both storied deep time, which is chemically etched in the DNA of every cell, and in recent doings, which leave more odoriferous traces. In old-fashioned terms, *The Companion* *Species Manifesto* is a kinship claim, one made possible by the concrescence of prehensions of many actual occasions. Companion species rest on contingent foundations.

And like the productions of a decadent gardener who can't keep good distinctions between natures and cultures straight, the shape of my kin networks looks more like a trellis or an esplanade than a tree. You can't tell up from down, and everything seems to go sidewise. Such snake-like, sidewinding traffic is one of my themes. My garden is full of snakes, full of trellises, full of indirection. Instructed by evolutionary population biologists and bioanthropologists, I know that multidirectional gene flow-multidirectional flows of bodies and values-is and has always been the name of the game of life on earth. It is certainly the way into the kennel. Whatever else humans and dogs can illustrate, it is that these large-bodied, globally distributed, ecologically opportunistic, gregariously social, mammalian co-travelers have written into their genomes a record of couplings and infectious exchanges to set the teeth of even the most committed free trader on edge. Even in the Galapagos Islands of the modern purebred dog fancy-where the effort to isolate and fragment breeding populations and deplete their heritage of diversity can look like model experiments for mimicking the natural disasters of population bottlenecks and epidemic disease-the restless exuberance of gene flow cannot be stilled. Impressed by this traffic, I risk alienating my old doppelgänger, the cyborg, in order to try to convince readers that dogs might be better

guides through the thickets of technobiopolitics in the Third Millennium of the Current Era.

Companions

In "The Cyborg Manifesto," I tried to write a surrogacy agreement, a trope, a figure for living within and honoring the skills and practices of contemporary technoculture without losing touch with the permanent war apparatus of a non-optional, post-nuclear world and its transcendent, very material lies. Cyborgs can be figures for living within contradictions, attentive to the naturecultures of mundane practices, opposed to the dire myths of self-birthing, embracing mortality as the condition for life, and alert to the emergent historical hybridities actually populating the world at all its contingent scales.

However, cyborg refigurations hardly exhaust the tropic work required for ontological choreography in technoscience. I have come to see cyborgs as junior siblings in the much bigger, queer family of companion species, in which reproductive biotechnopolitics are generally a surprise, sometimes even a nice surprise. I know that a US middle-aged white woman with a dog playing the sport of agility is no match for the automated warriors, terrorists, and their transgenic kin in the annals of philosophical inquiry or the ethnography of naturecultures. Besides, 1) self-figuration is not my task; 2) transgenics are not the enemy; and 3) contrary to lots of dangerous and unethical projection in the Western world that makes domestic canines into furry children, dogs are not about oneself. Indeed, that is the beauty of dogs. They are not a projection, nor the realization of an intention, nor the telos of anything. They are dogs; i.e., a species in

obligatory, constitutive, historical, protean relationship with human beings. The relationship is not especially nice; it is full of waste, cruelty, indifference, ignorance, and loss, as well as of joy, invention, labor, intelligence, and play. I want to learn how to narrate this cohistory and how to inherit the consequences of coevolution in natureculture.

There cannot be just one companion species; there have to be at least two to make one. It is in the syntax; it is in the flesh. Dogs are about the inescapable, contradictory story of relationships—coconstitutive relationships in which none of the partners pre-exist the relating, and the relating is never done once and for all. Historical specificity and contingent mutability rule all the way down, into nature and culture, into naturecultures. There is no foundation; there are only elephants supporting elephants all the way down.

Companion animals comprise only one kind of companion species, and neither category is very old in American English. In United States English, the term "companion animal" emerges in medical and psychosociological work in veterinary schools and related sites from the middle 1970s. This research told us that, except for those few non-dog loving New Yorkers who obsess about unscooped dog shit in the streets, having a dog lowers one's blood pressure and ups one's chances of surviving childhood, surgery, and divorce.

Certainly, references in European languages to animals serving as companions, rather than as working or sporting dogs, predate this US biomedical, technoscientific literature by centuries. Further, in China, Mexico, and elsewhere in the ancient and contemporary world, the documentary, archaeological, and oral evidence for dogs as pets, in addition to a myriad of other jobs, is strong. In the early Americas dogs assisted in hauling, hunting, and herding for various peoples. For others, dogs were food or a source of fleece. Dog people like to forget that dogs were also lethal guided weapons and instruments of terror in the European conquest of the Americas, as well as in Alexander the Great's paradigm-setting imperial travels. With combat history in Viet Nam as an officer in the US marines, Akita breeder and dog writer John Cargill reminds us that before cyborg warfare, trained dogs were among the best intelligent weapons systems. And tracking hounds terrorized slaves and prisoners, as well as rescued lost children and earthquake victims.

Listing these functions does not begin to get at the heterogeneous history of dogs in symbol and story all over the world, nor does the list of jobs tell us how dogs were treated or how they regarded their human associates. In *A History of Dogs in the Early Americas* (Yale, 1997), Marion Schwartz writes that some American Indian hunting dogs went through similar rituals of preparation as did their humans, including among the Achuar of South America the ingestion of an hallucinogen. In *In the Company of Animals* (Cambridge, 1986), James Serpell relates that for the nineteenth-century Comanche of the Great Plains, horses were of great practical value. But horses were treated in a utilitarian way, while dogs, kept as pets, merited fond stories and warriors mourned their deaths. Some dogs were and are vermin; some were and are buried like people. Contemporary Navajo herding dogs relate to their landscape, their sheep, their people, coyotes, and dog or human strangers in historically specific ways. In cities, villages, and rural areas all over the world, many dogs live parallel lives among people, more or less tolerated, sometimes used and sometimes abused. No one term can do justice to this history.

However, the term "companion animal" enters US technoculture through the post-Civil War landgrant academic institutions housing the vet schools. That is, "companion animal" has the pedigree of the mating between technoscientific expertise and late industrial pet-keeping practices, with their democratic masses in love with their domestic partners, or at least with the non-human ones. Companion animals can be horses, dogs, cats, or a range of other beings willing to make the leap to the biosociality of service dogs, family members, or team members in cross-species sports. Generally speaking, one does not eat one's companion animals (nor get eaten by them); and one has a hard time shaking colonialist, ethnocentric, ahistorical attitudes toward those who do (eat or get eaten).

Species

"Companion species" is a bigger and more heterogeneous category than companion animal, and not just because one must include such organic beings as rice, bees, tulips, and intestinal flora, all of whom make life for humans what it is-and vice versa. I want to write the keyword entry for "companion species" to insist on four tones simultaneously resonating in the linguistic, historical voice box that enables uttering this term. First, as a dutiful daughter of Darwin, I insist on the tones of the history of evolutionary biology, with its categories of populations, rates of gene flow, variation, selection, and biological species. The debates in the last 150 years about whether the category "species" denotes a real biological entity or merely figures a convenient taxonomic box sound the over- and undertones. Species is about biological kind, and scientific expertise is necessary to that kind of reality. Post-cyborg, what counts as biological kind troubles previous categories of organism. The machinic and the textual are internal to the organic and vice versa in irreversible ways.

Second, schooled by Thomas Aquinas and other Aristotelians, I remain alert to species as generic philosophical kind and category. Species is about defining difference, rooted in polyvocal fugues of doctrines of cause.

Third, my soul indelibly marked by a Catholic formation, I hear in species the doctrine of the Real Presence under both species, bread and wine, the transubstantiated signs of the flesh. Species is about the 16

corporeal join of the material and the semiotic in ways unacceptable to the secular Protestant sensibilities of the American academy and to most versions of the human science of semiotics.

Fourth, converted by Marx and Freud and a sucker for dubious etymologies, I hear in species filthy lucre, specie, gold, shit, filth, wealth. In Love's Body, Norman O. Brown taught me about the join of Marx and Freud in shit and gold, in primitive scat and civilized metal, in specie. I met this join again in modern US dog culture, with its exuberant commodity culture; its vibrant practices of love and desire; its structures that tie together the state, civil society, and the liberal individual; its mongrel technologies of purebred subject- and object-making. As I glove my hand in the plastic film—courtesy of the research empires of industrial chemistry-that protects my morning New York Times to pick up the microcosmic ecosystems, called scat, produced anew each day by my dogs, I find pooper scoopers quite a joke, one that lands me back in the histories of the incarnation, political economy, technoscience, and biology.

In sum, "companion species" is about a fourpart composition, in which co-constitution, finitude, impurity, historicity, and complexity are what is.

The Companion Species Manifesto is, thus, about the implosion of nature and culture in the relentlessly historically specific, joint lives of dogs and people, who are bonded in significant otherness. Many are interpellated into that story, and the tale is instructive also for those who try to keep a hygienic distance. I want to convince my readers that inhabitants of technoculture become who we are in the symbiogenetic tissues of naturecultures, in story and in fact.

I take "interpellation" from the French poststructuralist and Marxist philosopher Louis Althusser's theory for how subjects are constituted from concrete individuals by being "hailed" through ideology into their subject positions in the modern state. Today, through our ideologically loaded narratives of their lives, animals "hail" us to account for the regimes in which they and we must live. We "hail" them into our constructs of nature and culture, with major consequences of life and death, health and illness, longevity and extinction. We also live with each other in the flesh in ways not exhausted by our ideologies. Stories are much bigger than ideologies. In that is our hope.

In this long philosophical introduction, I am violating a major rule of "Notes of a Sports Writer's Daughter," my doggish scribblings in honor of my sports writer father, which pepper this manifesto. The "Notes" require there to be no deviation from the animal stories themselves. Lessons have to be inextricably part of the story; it's a rule of truth as a genre for those of us—practicing and lapsed Catholics and their fellow travelers—who believe that the sign and the flesh are one.

Reporting the facts, telling a true story, I write "Notes of a Sports Writer's Daughter." A sports writer's job is, or at least was, to report the game story. I know this because as a child I sat in the press box in the AAA baseball club's Denver Bears' Stadium late at night watching my father write and file his game stories. A sports writer, perhaps more than other news people, has a curious job—to tell what happened by spinning a story that is just the facts. The more vivid the prose, the better; indeed, if crafted faithfully, the more potent the tropes, the truer the story. My father did not want to have a sports column, a more prestigious activity in the newspaper business. He wanted to write the game stories, to stay close to the action, to tell it like it is, not to look for the scandals and the angles for the meta-story, the column. My father's faith was in the game, where fact and story cohabit.

I grew up in the bosom of two major institutions that counter the modernist belief in the no-fault divorce, based on irrevocable differences, of story and fact. Both of these institutions-the Church and the Press-are famously corrupt, famously scorned (if constantly used) by Science, and nonetheless indispensable in cultivating a people's insatiable hunger for truth. Sign and flesh; story and fact. In my natal house, the generative partners could not separate. They were, in down-and-dirty dog talk, tied. No wonder culture and nature imploded for me as an adult. And nowhere did that implosion have more force than in living the relationship and speaking the verb that passes as a noun: companion species. Is this what John meant when he said, "The Word was made flesh"? In the bottom of the ninth inning, the Bears down by two runs, with three on, two out, and two strikes, with the time deadline for filing the story five minutes away?

I also grew up in the house of Science and learned at around the time my breast buds erupted about how many underground passages there are

connecting the Estates and how many couplings keep sign and flesh, story and fact, together in the palaces of positive knowledge, falsifiable hypothesis, and synthesizing theory. Because my science was biology, I learned early that accounting for evolution, development, cellular function, genome complexity, the molding of form across time, behavioral ecology, systems communication, cognition-in short, accounting for anything worthy of the name of biology—was not so different from getting a game story filed or living with the conundrums of the incarnation. To do biology with any kind of fidelity, the practitioner must tell a story, must get the facts, and *must* have the heart to stay hungry for the truth and to abandon a favorite story, a favorite fact, shown to be somehow off the mark. The practitioner must also have the heart to stay with a story through thick and thin, to inherit its discordant resonances, to live its contradictions, when that story gets at a truth about life that matters. Isn't that kind of fidelity what has made the science of evolutionary biology flourish and feed my people's corporeal hunger for knowledge over the last hundred and fifty years?

Etymologically, facts refer to performance, action, deeds done—feats, in short. A fact is a past participle, a thing done, over, fixed, shown, performed, accomplished. Facts have made the deadline for getting into the next edition of the paper. Fiction, etymologically, is very close, but differs by part-of-speech and tense. Like facts, fiction refers to action, but fiction is about the act of fashioning, forming, inventing, as well as feigning or feinting. Drawn from a present participle, fiction is in process and still at stake, not finished, still prone to falling afoul of facts, but also liable to showing something we do not yet know to be true, but will know. Living with animals, inhabiting their/our stories, trying to tell the truth about relationship, co-habiting an active history: that is the work of companion species, for whom "the relation" is the smallest possible unit of analysis.

So, I file dog stories for a living these days. All stories traffic in tropes, i.e., figures of speech necessary to say anything at all. Trope (Greek: tropós) means swerving or tripping. All language swerves and trips; there is never direct meaning; only the dogmatic think that trope-free communication is our province. My favorite trope for dog tales is "metaplasm." Metaplasm means a change in a word, for example by adding, omitting, inverting, or transposing its letters, syllables, or sounds. The term is from the Greek metaplasmos, meaning remodeling or remolding. Metaplasm is a generic term for almost any kind of alteration in a word, intentional or unintentional. I use metaplasm to mean the remodeling of dog and human flesh, remolding the codes of life, in the history of companion-species relating.

Compare and contrast "protoplasm," "cytoplasm," "neoplasm," and "germplasm." There is a biological taste to "metaplasm"—just what I like in words about words. Flesh and signifier, bodies and words, stories and worlds: these are joined in naturecultures. Metaplasm can signify a mistake, a stumbling, a troping that makes a fleshly difference. For example, a substitution in a string of bases in a nucleic acid can be a metaplasm, changing the meaning of a gene and altering the course of a life. Or, a remolded practice among dog breeders, such as doing more outcrosses and fewer close line breedings, could result from changed meanings of a word like "population" or "diversity." Inverting meanings; transposing the body of communication; remolding, remodeling; swervings that tell the truth: I tell stories about stories, all the way down. Woof.

Implicitly, this manifesto is about more than the relation of dogs and people. Dogs and people figure a universe. Clearly, cyborgs-with their historical congealings of the machinic and the organic in the codes of information, where boundaries are less about skin than about statistically defined densities of signal and noise-fit within the taxon of companion species. That is to say, cyborgs raise all the questions of histories, politics, and ethics that dogs require. Care, flourishing, differences in power, scales of time-these matter for cyborgs. For example, what kind of temporal scale-making could shape labor systems, investment strategies, and consumption patterns in which the generation time of information machines became compatible with the generation times of human, animal, and plant communities and ecosystems? What is the right kind of pooper-scooper for a computer or a personal digital assistant? At the least, we know it is not an electronics dump in Mexico or India, where human scavengers get paid less than nothing for processing the ecologically toxic waste of the well informed.

Art and engineering are natural sibling practices for engaging companion species. Thus, humanlandscape couplings fit snugly within the category of companion species, evoking all the questions about the histories and relatings that weld the souls of dogs and

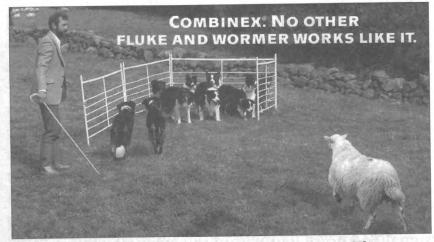


Figure 1. In the mid-1990s, this image of a ewe reversing life's inequities by penning nine Border Collies graced a Ciba-Geigy advertisement for its sheep and cattle flukicide and vermicide. Subject to the hard eye and stalk of the camera, the UK national sheepdog trial champion Thomas Longton stands on his Quernmore farm in Lancashire ready to close the pen on his accomplished dogs. Later, without the reference to Combinex but with a Dutch windmill airbrushed onto the landscape, a mirror image of the scene circulated widely in dogland on the Internet. Without credits or identifying information, the photo bore the apt title, "Border Collie Hell." Even without the relocated Dutch windmill, the photo was always a cyborg composite. For starters, two of the dogs are repeats of the same individuals, but from different angles; the young dogs in the rear are tied by invisible leads to the pen fence; the ewe was melded into the scene from another photo. In The Companion Species Manifesto, "Border Collie Hell" signals the ironic reversals embedded in naturecultures. Animals, people, landscapes, corporations, and technologies are all in on the joke. The photo also pleases those who 1) enjoyed the film Babe, and 2) work with herding dogs other than Border Collies. Thanks to Thomas Longton for the ad brochure and the story. Thanks also to webs of science studies, editorial, corporate, and Rorder Collie people who helped me track everything down.

their humans. The Scots sculptor Andrew Goldsworthy understands this well. Scales and flows of time through the flesh of plants, earth, sea, ice, and stone consume Goldsworthy. For him, the history of the land is living; and that history is composed out of the polyform relatings of people, animals, soil, water, and rocks. He works at scales of sculpted ice crystals interlaced with twigs, layered rock cones the size of a man built in the surging intertidal zones of the shore, and stone walls across long stretches of countryside. He has an engineer's and an artist's knowledge of forces like gravity and friction. His sculptures endure sometimes for seconds, sometimes for decades; but mortality and change are never out of consciousness. Process and dissolution-and agencies both human and non-human, as well as animate and inanimateare his partners and materials, not just his themes.

In the 1990s, Goldsworthy did a work called Arch. He and writer David Craig traced an ancient drover's sheep route from Scottish pastures to an English market town. Photographing as they went, they assembled and disassembled a self-supporting red sandstone arch across places marking the past and present history of animals, people, and land. The missing trees and cottars, the story of the enclosures and rising wool markets, the fraught ties between England and Scotland over centuries, the conditions of possibility of the Scottish working sheepdog and hired shepherd, the sheep eating and walking to shearing and slaughter—these are memorialized in the moving rock arch tying together geography, history, and natural history.

The collie implicit in Goldsworthy's Arch is less about "Lassie come home" than "cottar get out." That is one condition of possibility of the immensely popular late twentieth-century British TV show about the brilliant working sheepdogs, the Border Collies of Scotland. Shaped genetically by competitive sheep trialing since the late nineteenth century, this breed has made that sport justly famous on several continents. This is the same breed of dog that dominates the sport of agility in my life. It is also the breed that is thrown away in large numbers to be rescued by dedicated volunteers or killed in animal shelters because people watching those famous TV shows about those talented dogs want to buy one on the pet market, which mushrooms to fill the demand. The impulse buyers quickly find themselves with a serious dog whom they cannot satisfy with the work the Border Collie needs. And where is the labor of the hired shepherds and of the food-and-fiber producing sheep in this story? In how many ways do we inherit in the flesh the turbulent history of modern capitalism?

How to live ethically in these mortal, finite flows that are about heterogeneous relationship—and not about "man"—is an implicit question in Goldsworthy's art. His art is relentlessly attuned to specific human inhabitations of the land, but it is neither humanist nor naturalist art. It is the art of naturecultures. The relation is the smallest unit of analysis, and the relation is about significant otherness at every scale. That is the ethic, or perhaps better, mode of attention, with which we must approach the long cohabitings of people and dogs.

So, in The Companion Species Manifesto, I want to tell stories about relating in significant otherness, through which the partners come to be who we are in flesh and sign. The following shaggy dog stories about evolution, love, training, and kinds or breeds help me think about living well together with the host of species with whom human beings emerge on this planet at every scale of time, body, and space. The accounts I offer are idiosyncratic and indicative rather than systematic, tendentious more than judicious, and rooted in contingent foundations rather than clear and distinct premises. Dogs are my story here, but they are only one player in the large world of companion species. Parts don't add up to wholes in this manifesto-or in life in naturecultures. Instead, I am looking for Marilyn Strathern's "partial connections," which are about the counter-intuitive geometries and incongruent translations necessary to getting on together, where the god-tricks of self certainty and deathless communion are not an option.