

Making the Abstract Concrete: How a Comic Can Bring to Life the Central Problems of Environmental Philosophy

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INTRODUCTION

I first encountered Paul Chadwick's *Concrete* during the summer of 1997, while preparing to teach a course I had twice taught in the past called "Introduction to Environmental Philosophy". I was agonizing over the reading selections. The typical student in this class would not be a philosophy major – indeed, for the majority of the students in the class, this would be the only philosophy course they would ever take in their undergraduate careers. The standard environmental philosophy textbooks available at the time were collections of articles that were written, for the most part, by philosophers for philosophers. It was my experience that many students found these articles difficult and/or dry, and they often failed to engage the average student in the central problems of environmental philosophy. Consequently, I was on the lookout for less "academic" teaching resources that would be more effective in presenting these problems in a stimulating and accessible way.

During that summer, I stumbled upon an eight-page black and white comic story written and drawn by Paul Chadwick, titled "Stay Tuned for Pearl Harbor". "Concrete" is the name of both the title and the protagonist of a series of comic stories featuring episodes in the life of Ronald Lithgow, a former speechwriter whose brain has been transplanted by aliens into a twelve hundred pound rock body. Beyond the clichéd origin story, *Concrete* is utterly unlike your standard superhero comic. The *Concrete* stories are thoughtful ruminations on the human condition, "slices of life" that use the unusual appearance and abilities of the title character as a device for exploring a range of psychological themes and social issues.

In "Stay Tuned for Pearl Harbor" we accompany Concrete and his two closest friends, Larry and Maureen, as they drive in a pickup truck along a winding highway (Concrete is in the back of the truck; he's too big to sit in the cab). We hear Concrete expressing his anger to Larry over government complicity in promoting industrial pollution, and general public apathy over the looming threats posed by a burgeoning global population. However, Concrete's monologue functions primarily as background and counter-point to the central focus of the story, which is a stunning visual depiction of Maureen's silent, imaginative musings as she stares out the passenger-side window, contemplating her own experiences of nature and the role of perception and the sensory limitations of our bodies in ecological awareness.

I included "Stay Tuned for Pearl Harbor" in the reading package for my fall environmental philosophy course, and the students responded very positively to it. In fact, the comic turned out to be a richer source for discussion topics than I had expected. One student mentioned in passing, at the end of the semester, that the central themes and issues of the whole course were, at some level, "all there" in the *Concrete* story. This is perhaps an overstatement, but the central aim of this essay is to try as far as possible to demonstrate what truth there is in this student's claim.

The essay is organized as follows. Section 1 gives an overview of the subject matter of environmental philosophy, introducing the important distinction between *environmental ethics* and *radical environmental philosophy*. Section 2 introduces the *Concrete* story. The subsequent sections introduce a variety of conceptual issues that are central to debates in environmental philosophy, and discuss how these issues are expressed, directly or indirectly, through the narrative structure and visual imagery of the story. I focus on the *anthropocentrism/nonanthropocentrism* distinction in section 3, *deep ecology* in section 4, and *ecofeminism* in section 5. I return to the question of how to define environmental philosophy in section 6, and argue for a reconceptualization of the field as a general philosophy of human-environment relations.

1. WHAT IS ENVIRONMENTAL PHILOSOPHY?

For the sake of generality, we can define environmental philosophy as the philosophical study of the relationship between human beings and the broader environmental context in which they live and act. Though the field is traditionally associated with relations to natural environments, it should be noted that environmental philosophy is also concerned with relations to the artifactual environments that are the dominant environmental context of most human beings (cities, cultivated and managed suburban and rural landscapes, etc.). However, environmental philosophy as an academic discipline emerged in the late 1960s and early 1970s in response to growing concerns about human-induced species extinctions, habitat destruction, industrial pollution and human population growth. These concerns have not diminished, and environmental philosophy continues to be motivated and informed by the threat to human and nonhuman welfare posed by human activity and impact on the natural environment. In this essay I'll be dealing exclusively with human relations to nonhuman organisms, populations and ecosystems.

The central themes of environmental philosophy revolve around two related but distinct sets of questions:

- (1) Do human beings have moral obligations to protect or preserve the natural environment? If so, what are they, and to whom, or what, are they owed? How are such obligations justified?
- (2) What are the root causes of contemporary attitudes and practices with respect to the natural environment, and how can we change them?

These two sets of questions identify two broad, partially overlapping sub-disciplines of environmental philosophy. Answers to the first question effectively define the field of "environmental ethics". Answers to the second question effectively define the field variously known as "political ecology", "radical ecology", or "radical environmental philosophy". Anyone who calls herself an environmental philosopher will have something to say about both sets of questions, but workers in the field tend to focus their attention on one set of questions over the other.

Environmental Ethics

Most people who call themselves “environmental ethicists” are motivated by the belief that the answer to the first question is “yes”: human beings do have moral obligations to protect and preserve the natural environment. They also, for the most part, believe that the ethical theories that have dominated Western moral philosophy are, in their traditional forms at least, not well-equipped to justify environmentalist intuitions about the wrongness of environmental pollution, ozone depletion, greenhouse warming, habitat destruction, and accelerated rates of species extinction. Let me elaborate on these points.

Most ethical theories have two components: a theory of *value*, and a theory of *conduct*. A theory of value tells us what sorts of things are intrinsically valuable and worth pursuing for their own sake. A theory of conduct gives us principles for evaluating whether a particular action is morally right or wrong. We can use the ethical theory known as “utilitarianism” to illustrate the distinction, and to motivate the environmentalist critique. The theory of value associated with utilitarianism is a version of what philosophers call “value hedonism”, the view that what is intrinsically *good* in the world are experiences of pleasure, happiness, or well-being, and what is intrinsically *bad* are experiences of pain, suffering or unhappiness. The theory of conduct associated with utilitarianism is summarized by the following principle: *the morally right action is the one that will bring about the greatest happiness of the greatest number affected by the action*. The overall aim of utilitarianism, then, is to maximize happiness and minimize suffering.

Utilitarianism was revolutionary in two senses when it was first proposed by Jeremy Bentham and John Stuart Mill in 19th century Britain. It was revolutionary in the sense that it made no appeal to God to justify moral beliefs or evaluate moral actions, and it was revolutionary in its egalitarianism: in evaluating the consequences of an action, it was assumed that the happiness of every person must count equally (the happiness of the King could weigh no more heavily than the happiness of the lowliest peasant). Utilitarianism was regarded, and continues to be regarded by its supporters, as a progressive ideology that can justify a variety of egalitarian social and political reforms. But can it justify environmentalist intuitions concerning the wrongness of pollution, habitat destruction and biodiversity loss? Is it a suitable foundation for a progressive environmental ethic?

Many environmental ethicists would say “no”; utilitarianism, in its traditional form at least, is not a suitable foundation for an environmental ethic. This may seem surprising, since it is clear that unsustainable environmental practices can cause pain and suffering to human beings, and utilitarians are required to take such suffering into account in evaluating an environmental policy or practice. It should not be difficult to come up with good utilitarian arguments for at least some environmentally-friendly policies (pollution control regulations, for example). Furthermore, utilitarians must consider impacts not only on human beings, but on *all sentient creatures*, including mammals, amphibians, birds ... any creature with a relatively sophisticated nervous and hormonal system that one could argue is capable of experiencing pain. In addition, utilitarianism is the theoretical backbone of the *animal welfare movement* that strongly condemns the suffering inflicted on animals by factory farming practices and animal experimentation in

research laboratories. One might think that the animal welfare movement and the environmental movement would have similar political goals and would benefit from a shared ethical framework.

Yet there are instances where the intuitions of environmentalists may come into conflict with those of animal welfarists. An animal welfarist may urge us to save a rare species of *deer*, but an environmentalist may also urge us to save the rare *grasslands* that the deer feed on (what do you do if you can't save both?). Yes, utilitarianism regards the interests of sentient beings as worthy of direct moral consideration, *but this is as far as it goes*. A utilitarian evaluation of a policy regarding, say, the clear-cutting of old growth forests, must consider the happiness and suffering likely to be caused by such a policy on human beings and on the sentient animals that live in such forests, but it does not regard the interests of non-sentient organisms (trees, plants, insects, invertebrates, microorganisms, etc.) as worthy of direct moral consideration, nor does it recognize any intrinsic value in the structure, functioning or existence of “holistic” environmental entities (populations, species, communities, ecosystems, landscapes, etc.). A utilitarian ethic regards sentient beings as having *intrinsic moral value*, but it regards non-sentient beings and entities as having only *instrumental moral value* – i.e. value not for its own sake, but for the sake of something else (in this case, the sake of the welfare of sentient beings). Environmentalists vary in their views on what sorts of entities are suitable bearers of moral value, but many will argue that entities *other* than sentient beings are also worthy of moral consideration. They may believe, for example, that the death of the *last member* of a species is a moral loss distinct from its impact on human welfare, and distinct from the harm suffered by that last individual as it dies (it's not just the end of *this* blue whale, but the end of *all* blue whales, forever). Or they may believe that all living things, sentient and non-sentient, have a good-of-their-own that demands moral respect. In short, many environmentalists want to defend the intrinsic value of non-sentient environmental entities. Classical utilitarianism simply doesn't have the resources to justify such intuitions.

Nor do any other traditional Western ethical theories, for that matter. The *natural law* tradition in ethics (in both its Greek and Judeo-Christian formulations) draws a sharp distinction between the intrinsic moral value of humans and the instrumental value of animals and plants, which are presumed to exist *for the sake of* human beings. *Kantian ethics* and traditional *social contract* theories restrict intrinsic value to beings with at least the potential for rational thought. All of these ethical theories are strongly “human-centered”, or “anthropocentric” – i.e. they restrict direct moral consideration to the interests and welfare of human beings. Utilitarianism is the only classical ethical theory that is not strongly anthropocentric, but for many environmentalists it is still too restrictive in scope.

Thus, one of the main goals of environmental ethics is to seek alternative moral foundations, either through the development of new *nonanthropocentric* theories of moral conduct and value, or the *modification* of traditional anthropocentric theories, that would justify environmentalist intuitions. Nonanthropocentric environmental ethics argues for the intrinsic moral value of nonhuman environmental entities, and grounds a theory of conduct on recognition of, and respect for, such value. Modified anthropocentric theories maintain a focus on human values and interests, but allow that the nonhuman environment can have value for humans in a variety of different ways (beyond, say, purely economic value), and argue that the moral intuitions of

environmentalists can be justified when the value and importance of the environment is properly understood and appreciated.

Radical Environmental Philosophy

Radical environmental philosophers are also concerned with environmental problems, but their focus is on the historical, cultural and political processes that give rise to attitudes and practices toward the environment. The essential feature of radical environmental philosophy (what makes it “radical”) is the view that contemporary environmental attitudes and practices are deeply rooted in historical, cultural, religious and political structures, and that changing these attitudes and practices will require changes in these deep structures (note: “radical” derives from the Latin “radix”, meaning “of or pertaining to the root”). Thus, radical environmental philosophers offer specific diagnoses and prescriptions for what is perceived to be humanity’s current dysfunctional relationship with the natural environment. There are a number of different schools of radical environmental philosophy, that go by such names as “deep ecology”, “social ecology”, “socialist ecology”, “spiritual ecology” and “feminist ecology” (or as it is more commonly called, “ecofeminism”). Each school differs in its diagnosis of the human-environment condition, and consequently differs in its prescription for ameliorating this condition.

Radical environmental philosophies can differ in many ways. One important way is over how they understand social change. Are the causes of environmental attitudes and practices rooted primarily in the *ideas* that people have about the environment, or in the *economic, technological and institutional practices* (“material conditions of existence”, to use the Marxist phrase) of a culture. Does what we *think* about nature condition what we *do* to it, or does what we *do* to nature condition what we *think* about it? Intuition tells us that the influence probably goes both ways, but many theorists argue for a dominant influence in one direction over the other, and this conviction shows up in their differing strategies for political change. Those who argue that changes in beliefs and values are what drive social change are sometimes called “social idealists”; those who argue otherwise, that changes in the material conditions of existence are the primary determinants of social change, are “social materialists”.

Social idealists will focus on changing people’s beliefs and values through education, consciousness-raising, criticism, etc. Changes in behaviors and practices, it is hoped, will follow naturally. Among radical environmental philosophers, *deep ecologists* tend towards a social idealist approach to social change. Social materialists will argue that such efforts are wasted unless one also works to change the material conditions (especially, economic organization) that determine how human beings carve out and sustain their social organization through the exploitation of natural resources. *Socialist ecologists* (or “*ecosocialists*”), who target *global capitalism* as a primary cause of environmental problems, support a materialistic conception of social change. Other radical environmental philosophies occupy intermediate positions along the idealist-materialist spectrum.

This brief overview of the field of environmental philosophy is far from complete, but it will suffice as background for what is to follow. In the following sections I take a closer look at Paul Chadwick's "Stay Tuned for Pearl Harbor", and consider how the narrative and imagery in this comic story function to illustrate many of the themes alluded to above.

2. "STAY TUNED FOR PEARL HARBOR"

"Stay Tuned for Pearl Harbor" opens with an overhead shot of a pickup truck with three occupants, Larry, Maureen and Concrete, driving along a winding road through the mountains of the Pacific Northwest (Figure 1).

Larry and Maureen are Concrete's two closest friends. Larry is driving, Maureen is in the passenger seat, and Concrete is riding in the back of the truck. We catch Concrete in mid-sentence, complaining of the indifference and lack of accountability of oil companies to the environmental damage caused by drilling and extraction. Larry is listening attentively, but Maureen appears lost in thought; she stares out the passenger window at the passing wilderness landscape:

"You see so little speeding by. It takes time. And stillness. I remember how aware I became of all the processes, the intricate play of systems, that morning I spent sitting in the woods."



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Figure 1

Over the next three pages we enter Maureen's mind as she recalls a recent experience of ecological consciousness. Her narration, and the visual depiction of her experience, is punctuated at points by Concrete's continuing dialogue with Larry.

We see Maureen sitting cross-legged on the floor of a wooded area (Figure 2). She is actively trying to quiet her thoughts, open her senses, and make an experiential connection with her natural surroundings. Maureen's method is to imagine various extensions and

modifications of her perceptual faculties that would allow her to directly experience the manifold variety of ecological processes going on around her. Roots extrude from roots her fingertips and wrists, enter the ground, and her circulatory system merges with the root systems of nearby trees. She imagines her extended venous system swelling after a soaking rain, and makes a pointed observation: “Our anatomy determines our picture of the world”.

Maureen starts to consider further possibilities for extending our sensory experience of the natural world when Concrete’s monologue breaks in:

“After all, this administration is hardly hostile to the oil business. And this when we need to be using less oil, for the atmosphere’s sake. I swear, Larry. If some people could make a few million bucks, I’m sure they’d gladly do things that would give their grand-children cancer, if only they didn’t have to face it too squarely.”

This pattern – Maureen’s imaginative reverie aimed at promoting greater identification with nature, juxtaposed with Concrete’s critical observations and cynicism over human-induced environmental problems – is repeated throughout the story. Chadwick uses Concrete and Maureen to represent two distinct voices within the environmental movement, voices that may be used to illustrate some of the different positions within and between environmental ethics and radical environmental philosophy.



Figure 2

3. IS CONCRETE AN ANTHROPOCENTRIST OR A NONANTHROPOCENTRIST?

How does Concrete understand the ethical dimensions of environmental degradation? As we saw in section 1, there are two distinct approaches within environmental ethics, anthropocentric and nonanthropocentric. Concrete clearly believes that we have moral obligations to protect and preserve the natural environment, but is he an anthropocentrist or a nonanthropocentrist?

Concrete's primary concern throughout the story appears to be the long-term consequences of unchecked population growth, pollution, and environmental degradation on the welfare of current and future generations of human beings. He believes that there are natural limits to population growth and resource usage that, if surpassed, will likely result in widespread famine, ecological degradation and political desperation among vulnerable Third World countries. This will be our "ecological Pearl Harbor", a wake-up call that will force the First World to radically change its economic and industrial practices in order to avoid ecological catastrophe. He views the root causes of the environmental crisis as arising from a myopic fixation on a narrowly economic conception of growth and material welfare, and a consequent failure to appreciate the negative, long-term impacts of environmental deterioration. Such a position might be described as "enlightened, ecologically-informed anthropocentrism" – it focuses on potential harms to humans, but acknowledges that long-term human welfare is crucially dependent on the sustainable management of natural resources and the continuing existence of diverse, functional ecological communities. Now, Concrete *may also* regard the nonhuman environment as intrinsically morally valuable and worthy of protection and preservation for its own sake, but he isn't explicit about this either way; his criticisms certainly don't rely on any assumptions about the intrinsic moral value of nature. And yet, Concrete clearly identifies with the aims and politics of the environmental movement.

This is a useful point to emphasize. Though environmental ethicists are often critical of traditional Western ethical, political and economic theories for being exclusively concerned with human welfare, it is certainly possible to argue for radical environmental reforms from a purely anthropocentric standpoint. A nonanthropocentric environmental ethic may entail different types of reforms, reflecting particular moral concerns for nonhuman species, communities and ecosystems, than an anthropocentric ethic. But most environmentalists and environmental philosophers will agree that the *differences* between the reforms supportable by a nonanthropocentric ethic and the reforms supportable by an enlightened, ecologically-informed anthropocentric ethic, are *minimal* when contrasted with the enormous distance between the worldview envisioned in either set of reforms, and the current state of environmental awareness and concern exhibited by most government and business organizations.

In fact, it has been argued by pragmatically-oriented environmental philosophers that the anthropocentric/nonanthropocentric debate has consumed intellectual resources out of proportion to its importance and utility for solving real-world, practical environmental problems. If both approaches are capable of mounting serious objections to the status quo, then the more immediate concern should be on how to implement these objections, how to bring environmental philosophy into more direct and productive contact with environmental education, management,

policy, politics, and so forth. This call for practical application over abstract theoretical debate is an emerging voice in environmental philosophy.

4. DEEP ECOLOGY

Concrete's angry monologue is strikingly contrasted with Maureen's silent contemplation. This contrast can help to illustrate some of the differences between environmental ethics and radical environmental philosophy discussed in section 1.

Following on the theme that "our anatomy determines our picture of the world", Maureen imagines herself as a flattened gliding membrane as large as a football field, "skimming the treetops like a hand stroking a cat", bringing into tactile awareness the large-scale textures of the landscape that we normally only ever access perceptually, from great heights (Figure 3).

Next, we see her as a giant naked female figure, "a semi-solid ghost, the size of a 747, settling down in the earth, feeling the wary rustlings of burrowing animals, the cool flow of a stream through you". Maureen's appreciation for the natural world is derived from an intimate, experiential identification with nature, rather than from a conception of the environment as an instrument for the satisfaction of human interests, or as an impersonal, abstract object of knowledge and study by ecologists and environmental scientists.



Figure 3

The ethical/philosophical import of Maureen’s experiential identification with nature is highlighted on subsequent pages. Larry’s truck approaches a small town, and the natural landscape becomes interrupted by power lines, billboards and buildings. Maureen brings her imaginings into the present. Her “membrane-self” glides over the land, heading toward the town (Figure 4).



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Figure 4

“Of course, new senses would mean new sources of pain, too. If you were sensitive enough to taste ground-water minerals, you’d be nauseated by the toxins you absorbed.”

We see Maureen’s membrane-self catch and tear on the harsh metal and angular, unyielding edges of billboards and building structures, her head thrown back in a howl of pain. Next, we see bulldozers clearing a large area of land of all visible flora and fauna (Figure 5). Maureen’s giant, semi-transparent self is on her back, half immersed in the sand and dirt. Her head is thrown back in pain once again, teeth clenched, fists tight against her chest. Bulldozers run across her body, one very close to the inner thigh of one of her legs. The unmistakable impression is that she is being raped.



Figure 5

From this depiction, we are led to understand that Maureen views the harm inflicted by environmental deterioration not as harm to human needs and interests, and not as harm to the objectively described natural world that is the object of traditional scientific knowledge, but rather as harm *to her*. Or rather, harm to an expanded “ecological” conception of her self that does not recognize any firm distinction between “self” and “environment”. In identifying closely with nature, Maureen imagines herself as being poisoned by toxins in the soil, torn by the hard metal of the artificial landscape, assaulted by the bulldozers. One could argue that, for Maureen, an environmental ethic is nothing more than an *ethic of self-interest and self-preservation*, but where the “self” in question is not the narrow, egoistic self with which we normally identify, but the more expansive, “ecological” self that she is attempting to cultivate. To view the self from this perspective is to adopt a conception of self-hood and personal identity that rejects the traditional view that the “me” that is the subject of conscious experience is entirely identical with processes going on within the confines of my skull or even the boundaries of my skin. When imaginatively engaged in identification with the natural world, Maureen’s ecological self

expands outward into the natural world, making it difficult (perhaps impossible) to say where “she” ends and her “environment” begins.

This depiction of ecological consciousness, and its relation to the justification for environmentalist intuitions concerning the wrongness of environmental destruction, is closely aligned with the worldview of the school of radical environmental philosophy known as “deep ecology”, and in particular, the version of deep ecology propounded by Norwegian philosopher Arne Naess. Naess argues that the root cause of humanity’s dysfunctional relationship with the natural world is the prevalence of exclusively human-centered (anthropocentric) value systems that deny intrinsic value to the natural world as such. For those environmental ethicists who call themselves nonanthropocentrists, the challenge is to come up with a good argument for attributing intrinsic moral value to the nonhuman natural world, an argument that could function to justify environmental policies that acknowledge and respect this value. Though Naess is a nonanthropocentrist, he views the challenge differently. According to Naess, the challenge posed by the environmental crisis is fundamentally *psychological* – a problem of perception, self-concept, and subjective awareness – rather than an abstract ethical problem. We fail to recognize intrinsic value in nature because, in contemporary (technological, industrial, consumer) society, we are so often denied both the opportunity and the encouragement to engage in meaningful relationships with the natural world, relationships that would promote an experiential awareness of the connectedness and interdependence of organism-environment relations, and an expanded identification of the self with its natural environment. If such identification can be achieved, there is no further need to justify an environmental ethic, for environmentally-friendly attitudes and practices will follow as a natural consequence of self-interested desires and motives. Thus, for the deep ecologist, the challenge is to find ways to promote the kind of psychological reorientation that results in a natural disposition to value and protect the environment.

This discussion of deep ecology helps illustrate the distinction between environmental ethics and radical environmental philosophy introduced in section 1. Deep ecologists are very concerned with promoting nonanthropocentric ethical attitudes toward the natural environment, but they do not focus on developing moral arguments to refute the anthropocentric skeptic. Their main concern is with *social transformation*, and the focus of their philosophical work is on identifying root sources of environmental attitudes, with the aim of restructuring those attitudes in ways that will naturally engender environmentally-friendly practices (this is the “social idealism” implicit in their approach). Deep ecologists view anthropocentric attitudes as a product of a *metaphysical* worldview that, they argue, is presupposed by modern Western industrial society, a worldview that emphasizes the fundamental *separateness* of the human individual from its natural and social environment. Thus, much of their focus is on constructing and promoting alternative metaphysical schemes that emphasize the *holistic interconnectedness* of nature and that view human beings as part of and embedded within nature.

5. ECOFEMINISM

Chadwick’s depiction of Maureen’s experiential identification with nature has a close affinity to deep ecology, but it is also strongly suggestive of another school, *ecofeminism*. There are many

varieties of ecofeminist environmental philosophy, but all them share the core conviction that the *oppression of nature* is historically and conceptually related to the *oppression of women*, and hence, that the environmental crisis cannot be properly understood without simultaneously attending to the role that gender plays in our various conception of nature, and in the root causes and justification for environmental attitudes and practices. Ecofeminists have criticized deep ecologists (and other radical environmental philosophies) for failing to recognize or adequately appreciate the gendered dimension of environmental problems.

Consider, for example, the term “Mother Nature”. Nature is identified with the female throughout the Western tradition, and indeed, throughout much of the Eastern and aboriginal traditions of the world. In classical mythology, the male is commonly associated with the heavens above (“Father Sky”) and the female with the earth below (“Mother Earth”). Motivations for the association are not hard to understand. Women give birth, and nurse their young from the milk of their bodies (the earth is fertile, it brings forth life); women provide for the physical and emotional needs of children, and are traditionally involved more than men in the preparation of food and the maintenance of domestic households (the earth provides sustenance and nurturing for all living creatures); women experience menstrual cycles that involve the shedding of blood and tissue (the earth’s fertility is cyclical as well – indeed, the human female menstrual cycle is roughly identical to the lunar month). Women have also been associated with less “motherly” aspects of nature; for example, as a capricious, unpredictable and chaotic force that, on a whim, may bring forth draught and flood, fire and frost, and lay waste the lives and works of human beings.

Chadwick’s depiction of Maureen’s “ecological self” strongly suggests a conception of nature as female. When I present this story to students, few are consciously aware of the association on a first reading. But then I ask them to consider their impression if the story was described in identical fashion, but with Larry and Maureen’s roles reversed. Maureen is driving the pickup truck while Larry looks out the window and imagines himself as Maureen does – say, as a giant bearded man reclining into the earth, feeling the rustling of burrowing animals below ground, and the flow of streams through and around his naked body. Inevitably, many students react strongly to this image – one male student said he found it “unsettling”, another said it made Larry look “effeminate”. Once their attention is drawn to the image in which Maureen is being “raped” by the bulldozers (Figure 5), there is no longer any doubt that Chadwick’s depiction of environmental harm is strongly gendered – I have yet to find a student who does not find this image, in which Larry is replaced with Maureen, as jarring and discordant, if not absurd. Though men can certainly be raped, the convention is to associate sexual violation with harm to women, not to men.

What does any of this have to do with the root causes of environmental problems? A common ecofeminist claim is that the association of nature with the female is very often embedded within a larger conceptual scheme that is both *dualistic* and *hierarchical*. A representative list of such conceptual dualisms would include: mind/body, reason/emotion, fact/value, objective/subjective, active/passive, logic/intuition, culture/nature, and male/female. What makes these pairs *dualistic* is that they are viewed as mutually exclusive – to be reasonable is to NOT be emotional; to focus on the empirical facts is to NOT make value judgments, etc. What makes the pairs *hierarchical* is that each of the terms on the left represents something that, in general, is valued more highly

than what is represented on the right – the mind is valued *over* the body, reason *over* emotion, fact *over* value, culture *over* nature, and notably, male *over* female. There is, in addition, a broad association between *all* the concepts on the left and *all* the concepts on the right – the male is associated with the mind, reason, logic, objectivity, culture, etc.; the female with the body, emotion, intuition, subjectivity, nature, etc. The association of nature with the female is embedded within a much broader patriarchal conceptual framework that devalues both nature and the female. There is a connection, say ecofeminists, between attitudes and practices that devalue and exploit the natural world, and attitudes and practices that devalue and exploit women. In the *Concrete* story, this connection is made most strongly in the suggested association between environmental degradation and the “rape” of Mother Nature.

Consequently, for ecofeminists, the aims and goals of the environmental movement cannot be separated from the aims and goals of the women’s movement, or, indeed, the goals of all oppressed groups that suffer under social systems that express and reinforce dualistic and hierarchical conceptual frameworks. One can see why ecofeminists might be dissatisfied with the deep ecological approach to environmental philosophy. Deep ecologists are keen to break down conceptual dualisms that separate human beings from the natural environments, but ecofeminists argue that they often fail to consider how those dualisms are constructed and maintained in the first place. Ecofeminists are more likely than deep ecologists to focus their critiques on the social, economic and political institutions that serve and are served by patriarchal conceptual frameworks, and place greater emphasis on promoting collective social action as a means for social change, rather than on individual consciousness-raising activities. In this respect they are further away from the idealist end of the idealist/materialist spectrum than deep ecologists. There are, however, many sub-varieties of ecofeminism, and some have closer affinities to deep ecology than others.

6. HUMAN ECOLOGY: THE CORE OF ENVIRONMENTAL PHILOSOPHY?

In section 1 I characterized environmental philosophy as an attempt to answer the following sets of questions:

- (1) Do human beings have moral obligations to protect or preserve the natural environment? If so, what are they, and to whom, or what, are they owed? How are such obligations justified?

- (2) What are the root causes of contemporary attitudes and practices with respect to the natural environment, and how can we change them?

The two broad sub-fields of environmental philosophy, “environmental ethics” and “radical environmental philosophy”, are respectively associated with these questions. Anyone working in environmental philosophy will be familiar with the main theoretical positions within both sub-fields, but it is not unfair to say that the field is somewhat fragmented, in that workers usually identify with one sub-field or the other, and tend to see the foundational problems of their sub-field as relatively *autonomous*, i.e. not inextricably dependent on the foundational problems of

the *other* sub-field. To a certain extent, specialization into sub-fields is to be expected as any discipline matures, but I believe that this view – that the foundational problems of environmental ethics are separable and distinct from the foundational problems of radical environmental philosophy – should be resisted. There is a deeper set of problems that bind these sub-fields together, problems that I believe more accurately characterize the *core* of environmental philosophy.

What is this core? To help think about this, let us consider a different question than the ones we have looked at so far. *What would environmental philosophy look like if there was no environmental crisis, if human beings actually lived in sustainable harmonious relationships with the natural world?* In such a world, would there be any reason to “do” environmental philosophy? If we understand environmental philosophy in terms of the two sets of questions given above, then it would seem the answer is “no”. Intellectual support for the environmental movement appears to be the *raison d’être* of environmental philosophy. Why worry about justifying ethical practices toward the environment if our practices are already ethical? Why worry about understanding the root causes of environmental attitudes and practices if there is no felt need to change them?

My own view is that there would be a great deal left for environmental philosophers to do, and it is this that constitutes the core of environmental philosophy. Environmental philosophy is, to quote our initial definition from section 1, “the philosophical study of the relationship between human beings and the broader environmental context in which they live and act”. In other words, it is the study of the *ecological dimensions of human nature and human behavior*. We are an evolved species on this planet, unique to be sure, but still fundamentally a product of a complex ecological and evolutionary process that has conditioned not only our biology, but also our psychology and cognitive capacities, and the social dimensions of our existence. Even without the motivating influence of a perceived environmental crisis, there is still much to understand about human-environment relations, questions of a fundamental nature that concern scientists and philosophers alike.

My claim is that in attempting to answer the standard questions of environmental ethics and radical environmental philosophy, environmental philosophers invariably run into questions concerning the ecological dimensions of human perception, cognition and activity – what I regard as core questions for environmental philosophy. There isn’t room to argue for this in detail here, but our *Concrete* story can help illustrate the point.

Consider Concrete’s concern over human population growth. His main worry is that the carrying capacity of the earth is finite, and that exponential growth rates are poised to overshoot this carrying capacity, resulting in mass starvation in Third World countries, a consequence that we all strongly wish to avoid. But what exactly is the carrying capacity of the earth? In population ecology, “carrying capacity” is defined as the maximum population that can be sustained within a given environment. For a given population living within a particular ecological niche, the carrying capacity is usually regarded as a fixed constant. But humans can *modify* their environments in ways that no other organism can. And arguably, humans can create *new* resources where none existed before (think of uranium in the ground before and after the development of nuclear technology). Ultimately, Concrete’s concerns are based on assumptions

about *human ecology* that may reasonably be challenged. Before we can answer the question of how many people *ought* to live on the earth, surely we need to have some understanding of how many *can* live on the earth. This is a problem for human ecology, and hence a problem for environmental philosophy, as I have defined it.

The ecological issues implicit in Maureen's story are even clearer. It is in coming to appreciate the ecological dimensions of her being that Maureen is able to overcome the dualistic thinking that isolates human beings from nature; it is Maureen's experiential identification with her environment and the expansion of her cognitive and sensory capacities that allows her to view the welfare of the environment as a concern for *her*. But Chadwick's depiction of Maureen's imaginative engagement with nature raises deep philosophical questions about the nature of *the self*. We are invited to consider that the self is partly constituted by its relations to the biotic and abiotic environment, but does this imply that there is no self-environment distinction? Or does it simply imply that any conception of self automatically implies a conception of environment that is defined in relation to it? Critics may wonder why anyone would find this depiction philosophically provocative at all, since (they might say) Maureen is just "daydreaming", it's all going on "in her head". The question is a serious one: to what extent do our best theories of perception and cognition support anything like the "ecological" conception of the self that deep ecologists (and to some extent ecofeminists) encourage us to embrace? These too are problems for human ecology, and hence for environmental philosophy. There are many more such problems for a philosophy of human-environment relations.

Contemporary environmental philosophy is what you get when the legitimate fears and concerns of environmentalists are brought to bear on philosophical thinking about human-environment relations. The standard problems of environmental ethics and radical environmental philosophy are a natural outgrowth of these concerns. I suspect, however, that progress on these problems would be better served if the discipline was reconceived as a *general philosophy of human-environment relations*. Such a perspective would focus attention on foundational issues that are too often avoided or glossed over in the environmental literature. At the very least it would encourage productive dialogue between relatively isolated sub-fields of environmental philosophy

CONCLUSION

I have used "Stay Tuned for Pearl Harbor" in subsequent environmental philosophy classes I have taught, and it never fails to engage student attention and elicit interesting classroom discussion. More importantly, it elicits discussion that is directly relevant to some key issues in environmental philosophy, most notably, the anthropocentrism/nonanthropocentrism debate in environmental ethics, and the deep ecology/ecofeminism debate in radical environmental philosophy.

These are important topics, but environmental philosophy is much broader, and encompasses many more topics and issues, than just these. Other commonly discussed topics in environmental philosophy classes include the role of religion in grounding and justifying attitudes toward the environment; the relationship between economics, ethics and ecology; the

issue of First World versus Third World responsibility for global poverty and population growth; “ecoterrorism” and the ethics of environmental activism; and many others. The *Concrete* story has been a jumping point for discussions on a number of these issues as well. The success I’ve had with using comics in these classes has encouraged me to look for other comic stories that might prove useful in teaching other areas of philosophy.

SUGGESTED READING

For a comprehensive overview of issues and debates in environmental philosophy geared to the university classroom, I recommend the following collection:

Light, A, and Rolston, H. (eds.) (2003) *Environmental Ethics: An Anthology*, Malden, MA: Blackwell Publishing.

For a shorter introduction to environmental philosophy that is perhaps more accessible to a wider audience, I recommend

Weston, A. (ed.) (1999) *An Invitation to Environmental Philosophy*, New York: Oxford University Press.

A good source for Arne Naess’s environmental philosophy is

Naess, A. (translated and edited by D. Rothenberg) (1989) *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, Cambridge: Cambridge University Press.

“Stay Tuned for Pearl Harbor” is collected in

Chadwick, P. (1990) *Concrete: Complete Short Stories, 1986-1989*, Milwaukie, OR: Dark Horse Comics.

I was embarrassed to discover, at the end of the environmental philosophy course I taught in the fall of 1997, that Paul Chadwick had published a series of six comics featuring *Concrete*’s involvement with the radical environmental activist group known as Earth First! (with the exclamation point), and that the series had been collected and published by Dark Horse Comics in April 1997. I was using an 8-page black and white comic from 1989, unaware of the existence of a 130-odd page full-color graphic novel on *Concrete*’s involvement with environmental issues published the very year I was teaching my course. I highly recommend

Chadwick, P. (1997) *Concrete: Think Like a Mountain*, Milwaukie, OR: Dark Horse Comics.

The title, *Think Like a Mountain*, comes from Aldo Leopold, one of the founding figures of the environmental movement and one of the first to defend a nonanthropocentric environmental ethic. His famous collection of essays is

Leopold, A. (1949) [1977] *A Sand County Almanac: And Sketches from Here and There*, New York: Oxford University Press.