Introduction

Ecosee: A First Glimpse

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My first view—a panorama of brilliant deep blue ocean, shot with shades of green and gray and white—was of atolls and clouds. Close to the window I could see that this Pacific scene in motion was rimmed by the great curved limb of the Earth. It had a thin halo of blue held close, and beyond, black space. I held my breath, but something was missing—I felt strangely unfulfilled. Here was a tremendous visual spectacle, but viewed in silence. There was no grand musical accompaniment; no triumphant, inspired sonata or symphony. Each one of us must write the music of this sphere for ourselves.

-Charles Walker, U.S. astronaut

In the Introduction to their 1992 book *Ecospeak: Rhetoric and Environmental Politics in America*, M. Jimmie Killingsworth and Jacqueline S. Plamer initiate a conversation about ecospeak, "a makeshift discourse for defining novel positions in public debate" about environmental and ecological issues (8). Killingsworth and Palmer explain that "like Newspeak, the austere vocabulary of mind control in Orwell's politicolinguistic fable *1984*, ecospeak becomes a form of language and a way of framing arguments that stops thinking and promoting cooperation through communication" (9). That is, ecospeak operates to establish political capital without calling into question its own position, its own politics. For Killingsworth and Palmer, ecospeak is a rhetorical object in need of critical examination in order to break the hold of ecospeak by identifying various discourses on the environment before they are galvanized by dichotomous political rhetoric. *Ecospeak: Rhetoric and Environmental Politics in America* does so by studying the transformations of these discourses as

they enter the public realm by a local discourse community (whether a professional ghetto like "the scientific" community or an actual region defined by geographic and democratic features). At the very least, such an analysis can reveal possible identifications and real conflicts passed over by an ever-too-glib retreat into ecospeak (10).

Ecospeak, in detail, then, performs a rhetorical analysis of a number of works by writers "representing several distinct ethical and epistemological perspectives on environmental issues" (11). The book itself is first an act of rhetorical analysis of a particular kind of discourse that Killingsworth and Palmer have aptly termed *ecospeak*. However, the sophistication of their study contributes to a larger conversation about how ecology, environment, and even nature are formed by and through discourse in which ecospeak can be seen not (only) as a particular discursive object in need of the analysis performed by Killingsworth and Palmer but instead as the larger framework that identifies that rhetoric—in the case of *Ecospeak*, writing in particular—and the politics of environment and ecology are inextricably bound.

Ecospeak is a work of both discourse analysis and discourse theory, and as such it is a monumental work. However, Ecospeak does not take into account the role images play in promoting various ecospeaks, nor in the larger examination of the relationships between discourse and environment/ecology. Of course, it would be unfair to claim that this is a failure of Ecospeak, as the new media boom of the late twentieth and early twenty-first centuries had only begun to take hold when Ecospeak was published. Ecosee: Image, Rhetoric, Nature works beyond Killingsworth and Palmer's attempt to understand "the relationships among language, thought, and action in environmental politics" to take into consideration the visual facet of environmental rhetoric. Ecosee, then, is the study and the production of the visual (re)presentation of space, environment, ecology, and nature in photographs, paintings, television, film, video games, computer media, and other forms of image-based media. Ecosee considers the role of visual rhetoric, picture theory, semiotics, and other image-based studies in understanding the construction and contestation of space, place, nature, environment, and ecology. Ecosee is not (only) an analysis of existing images, it is a work toward making theories that put forward ways of thinking about the relationship between image and environment, nature, and ecology, as well as a theory (or, more accurately, a number of theories) of visual design for those who make images. Ecosee is bound to writing, as the production and interpretation of image walk hand in hand with the production and interpretation of written discourse. While Killingsworth and Palmer rightly identify that "as much as the environmental dilemma is a problem of ethics and epistemology, it is also a problem of discourse" (6), so too is the environmental dilemma(s) a problem of image/imaging. For ecosee, though, the environmental dilemma is not just a political/ecological crisis about the protection of the environment but a dilemma of representation, a dilemma of rhetorical and visual-rhetorical choice.

The environmental movement, which has taken various forms since its modern inception in the late 1960s, has sparked wide scholarship on the ways that messages about the environment are communicated. Such approaches toward this study usually include environmental rhetoric, environmental discourse, or, more recently, ecocomposition. These subject areas, usually housed in departments of history, political science, the natural sciences, communications, and English, focus on the language used by both environmentalists and anti-environmentalists¹ and how this language becomes coded and appropriated by all sides of eco-political struggles. However, these studies traditionally have paid little attention to how images are used to spread eco-political capital and how these "eco" images might interact with texts and other images. While scholars have successfully focused on the verbal/discursive representations of nature and the environment, they have, for the most part, overlooked its visual representation and construction.

Of course, other disciplines, such as art history, have certainly developed traditions of research that address visual representations of nature. It would, for instance, be impossible to address the works of painters such as George Catlin, Thomas Moran, Albert Bierstadt, and Winslow Homer without some attention to their representations of landscape. The same could be said of Georgia O'Keefe, whose paintings represent not only landscape but shells, rocks, bones, and flowers. To attempt to list artists-whether painters or otherwise, known or unknown-who have created works that represent nature would be impossible. Likewise, a number of works have taken up the examination of the relationship between art, image, and representations of nature. For instance, E. H. Gombrich's classic Art and Illusion: A Study in the Psychology of Pictorial Representation examines relationships between the imitation of nature and the role of tradition. Gombrich points out early in his masterpiece that "artists know that they learn by looking intensely at nature, but obviously looking alone has never sufficed to teach an artist his trade" (1960, 11). Gombrich goes on to develop a theory of mimesis throughout Art and Illusion that deeply examines the traditional relationship between art and nature. Though he identifies nature as an ideology, he poses an argument for the "naturalness" of imagery. Likewise, theorist and critic W. J. T. Mitchell's landmark books Picture Theory: Essays on Verbal and Visual Representation (1994) and Iconology: Image, Text,

Ideology (1986) invoke Gombrich's work to establish some of the most groundbreaking theories of images of late. In developing such theories, Mitchell addresses the representation of nature in a number of ways: the relationship between nature and illusion (*Picture Theory*), the role of the self in seeing nature (Picture Theory), nature versus convention (Iconology), and nature as imitation (Iconology). Similarly, John Berger's books About Looking (1980) and Ways of Seeing (1977) work to understand the relationships between image and reality, arguing that "all images are manmade" and that "when we 'see' a landscape, we situate ourselves in it" (1977, 9, 11). Previous work by Steve Baker, a contributor to this book, has also set the tone for a contemporary evaluation of the relationship between art/image and nature. Baker's The Postmodern Animal (2000) is one of the most captivating studies of how contemporary art (exemplified in the work of Olly and Suzi-who he takes up in his contribution to this collection as well-Mark Dion, Damien Hirst, Sue Coe, and a number of others) works not only to represent nature but to shape the very idea of identity. In his earlier work, Picturing the Beast (2001), Baker examines the role of animal images in contemporary culture, developing a theory of "disnification" in which the image and representation of animals are often reductive, presenting animals as stupid, trivial, and of limited value. With these works and others in mind, we can easily identify that various disciplines of artistic production also have developed a scholarly history of examining and producing representations of nature. Yet few have done so with an extended agenda of examining the politics and (visual) rhetorics of those images (Berger's and Baker's works are notable exceptions, ones that are critical to the foundations from which Ecosee evolves). Within and beyond this tradition, Ecosee works to bring together a range of disciplinary works to coalesce various efforts to better understand the role of image and visual representations of nature in constructing the politics of nature and environment.

The study of nature's visual representation is particularly important given that a large part of individuals' experiencing nature involves seeing nature as nature.² Much of the rhetoric evoked by environmentalists or nature enthusiasts is that of the visual expanse of nature: grand vistas, crystal-clear waters, resplendent flora and fauna. One recognizes this as well in the writings of John Ruskin:

This first day of May, 1869, I am writing where my work was begun thirty-five years ago, within sight of the snows of the higher Alps. In that half of the permitted life of man, I have seen strange evil brought upon every scene that I best loved, or tried to make beloved by others. The light which once flushed those pale summits with its rose at dawn, and purple at sunset, is now umbered and faint; the air which once inlaid the clefts of all their golden crags with azure is now defiled with languid coils of smoke, belched from worse than volcanic fires; their very glacier waves are ebbing, and their snows fading, as if Hell had breathed on them; the waters that once sank their feet into crystalline are now dimmed and foul, from deep to deep, shore to shore. These are no careless words—they are accurately—horribly—true. I know what the Swiss lakes were; no pool of Alpine fountain at its source was clearer. This morning, on the Lake of Geneva, at half a mile from the beach, I could scarcely see my oar-blade a fathom deep. (1903–1912, Preface, Vol. 19, pg. 293)

Ruskin describes the declining quality of his environment due to pollution from nearby factories, but this passage is not interesting only because of what it says about threats from pollution but what it says about how the environmentally concerned understand nature in two ways. First, Ruskin shows us how those deeply concerned for the environment feel a pressing need to write about it. They need to actively and discursively construct their idea of nature, and here Ruskin compares two states of his environment at two different times. However, he also shows us how we discursively construct not just a general picture of nature but the picture itself. Ruskin employs visual cues such as various colors, sunsets, mountains, light, and crystalline. He also uses visual verbs such as sight, seen, see. Perhaps because of his work as an art critic, Ruskin knows what his lakes were through the visual, and he knows that the environment is healthy when it is clear and clean.

However, we must make this clear: although Ruskin uses imagery to create a textual picture of his environment, he does not present an image. As Gorgias argues in Plato's dialogue of the same name: "To begin with, he does not say a color, but a saying" (1989, 980 b 5), identifying a fundamental difference between the words articulated as a description of the color and the color itself. Plato's point, and one that Jean-François Lyotard echoes, is that we can never know the object in the world but can only address it and understand it through language. Despite the term *imagery*—as it is used in poetry—the imagery of language is not a visual image. It may rely upon the metaphor of sight and convey images within the mind, but ten words in a poem will necessarily omit the other 990 signifiers that real images can convey.

Lyotard also explains that we construct reality through language: "Reality is not what is 'given' to this or that 'subject,' it is a state of the

referent (that about which one speaks) which results from the effectuation of establishment procedures defined by a unanimously agreed-upon protocol" (1988, 4). The reality of "nature" is similarly an agreed-upon social construction that humans often take for granted as "real." There is no "nature" that exists in the world except as a discursively constructed concept. Again quoting Lyotard: "Even in physics, there exists no protocol for establishing the reality of the universe, because the universe is the object of an idea" (5). Just as "reality is not a given" (9), nature is not a given but must be established through language, whether that language includes the verbal, visual, or both.

Although perhaps true of most of our daily interactions, our interaction with nature is inherently visual; most of our outdoor activities rely on sight for their engagement. One visits the Grand Canyon to experience its visual vastness, and one hikes along the Florida Scenic Trail for its scenery. Signs to such parks and recreation areas often enforce this visual interaction: "Leave only footprints, take only photographs." Activities such as photography, fishing, or hunting all require the visual for their participation and enjoyment, and even the tools used to carry out these activities reflect this: a camera lens, a fishing lure that seeks to visually mimic natural prey, attached to the line by the hook's "eye," a hunting rifle's "sight."

It is not surprising then that Homo sapiens' first artwork and writing depicted nature. Many scholars have pointed to the caves at Chauvet-Pont-d'Arc as evidence of the human propensity toward the representation of nature. Many see these depictions as first examples of art, and others identify them as precursors to writing. In either case, their importance grows from the relationship between the need for visual representation-either art or writing-and the need to represent nature. With this first art/writing comes a human visual construction of nature. What is the rhetorical significance of the fact that compared to the art/writings found in other regions of France, the caves at Chauvet-Pont-d'Arc depicted dangerous animals, while "the animals most often depicted in Paleolithic caverns are the same as those that were hunted" ("Time and Space")? Could this suggest that even within the same area different people valued, through representation, different parts of nature over others? Did one group represent nature because of its use as food, and another because of its potential danger? The representation of nature itself becomes a rhetorical representation, one that constructs a reality of nature. A difference in representation suggests a difference in ideological construction. Composing nature through images does not represent that nature, but composes, making the image an ontological surface below which the real was never present.

Given the historical importance of images in constructing nature, it is little wonder that environmental groups have incorporated images into their rhetorical strategies, and that they rally around constructed icons. Robert Gottlieb points out that "more than many social movements, environmentalism has become associated with compelling ideas and images—whether Nature (the value of wilderness) or Society (the negative associations of urban pollution or hazards)" (2001, 5). These images do not become passively associated with any particular environmental idea or political movement but are actively incorporated into the agenda of such groups because of the images' rhetorical qualities, based in the pathos, ethos, or logos of an image, or a combination of the three. However, some images are so shocking that they almost instantly become iconic on their own. Maarten Hajer explains this about the representation of planet Earth:

If there is one image that has dominated environmental politics over the last twenty-five years it is the photo of the planet Earth from outer space. This picture, which entered the public imagination as an offspring of the 1960s Apollo space programme, is said to have caused a fundamental shift in thinking about the relationship between man and nature. The confrontation with the planet as a colorful ball, partly disguised by flimsy clouds, and floating seemingly aimless in a sea of utter darkness, conveyed a general sense of fragility that made people aware of human dependence on nature. It facilitated an understanding of the intricate interrelatedness of the ecological processes on planet Earth. Indeed, the image, it is said, caused a cognitive elucidation through which the everyday experience of life in an industrialized world was given a different meaning. (1995, 8)

Like Ruskin, Hajer shows us the Earth (or in this case, a representation of the Earth) through language rather than including the photograph in his book. He describes Earth's colors, shape, and features to provide his reader with a verbal picture of the planet. So although Hajer claims that the image was so powerful, and he points this out at the beginning of his work, the written word gains preference over the image. Of course, unlike Paleolithic Neanderthals, we no longer rely solely on images as material media to convey meaning but have transitioned to written text (writing, of course, being a form of image, though we skew that distinction here to indicate an artificial difference between writing and other forms of image); Ruskin's and Hajer's depictions make clear that if we want to understand how pictures represent the environment, then we must come to them through a textual explanation. As Gottlieb also explains, "these images are made manifest by language and representation" (2001, 5).

If these images are so important to both Hajer and Gottlieb, then why do both abandon their discussion of the image after just one reference? Both authors quickly turn from image and its impact on the perception of the environment to language instead. If images are so powerful in how we construct environment, as Hajer points out with the image of the Apollo Earth, then scholars should focus beyond environmental rhetoric and discourse as primarily language based and also look at it as image based. They should examine how the environment creates images, and how these images create the idea of the environment. This is the project of ecosee: to study the visual representation of nature and environments in photographs, paintings, television, movies, video games, and all forms of new media that use images. Such a study theorizes how humans use images to construct ideas of nature and environment, how those images reinforce those constructions, and how humans may use existing images (or make new ones) to create alternative ways of seeing nature and environment. Theories of ecosee consider how and what images-both the idea of the image and specific images themselves-might suggest about the environment and also look toward a variety of perspectives from different disciplines-visual semiotics, environmental rhetoric, image theory, spatial theory, ecology, to name a few-and their elements that theories of ecosee might contain.

One can almost hear the grumbling now: first ecocriticism, then ecospeak, next ecocomposition, and now ecosee. Two neopests (Gregory L. Ulmer's neologism for those who needlessly create neologisms) are at it again, making up another empty word upon which to build a book. And this we admit is almost entirely true-almost. Ecosee is related and dependent upon all of these various eco-studies but is the next logical extension in a discursive environment to Guy Debord's "society of the spectacle." Part of this project arises from what W. J. T. Mitchell (1994, 11) calls "the pictorial turn," where images are becoming more of a problem for public discourse. Besides Debord, who identified the problem of the society of the spectacle, ecosee invests heavily in the promise of electracy, as invented (and termed) by Gregory L. Ulmer (2003). Ulmer, through grammatology, sees the apparatus of literacy failing, because it does not support the technology of the digital Internet, which relies heavily upon the category of the image, a category for which we have developed no logic. One of the purposes of the humanities is that we teach people to become citizens in a democracy that relies upon literacy. Part of electracy (which is to the Internet what literacy is to print) is to help citizens think with the image. Ecosee contributes to this effort in respect to nature, if not also allowing readers/viewers to see systems of image at work rather than working alone.

The rhetorical constructs in Ecospeak and other investigations of environmental rhetoric are important in understanding what role the image might have, but while ecosee is motivated from work within environmental studies, the visual aspects are advanced by another realm of research. It traces its roots to other scholars and writers such as previous works by Ecosee contributor Cary Wolfe, whose questions regarding the animal other and the idea of being human force us to rethink the very image of animal and theorize the very construction of animal and human. Wolfe's brilliant 2003 Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory and his powerful 2003 collection Zoontologies: The Question of the Animal, both of which take into account the "question of the animal" by way of critical theory and theorists, as well as his 1998 Critical Environments: Postmodern Theory and the Pragmatics of the "Outside," a remarkable book of critical theory, stand as central in motivating our work toward a concept of ecosee. As we mentioned earlier, Steve Baker, whose insightful and moving examination of the imagery of animals as it has been employed in performance, theory, and philosophy, also provides ground from which ecosee departs. Other projects in the postmodern disruption and critique of traditions of understanding nature, ecology, science, and other similarly politically loaded terms have encouraged us to pursue this project: Donna Haraway's ongoing work in the philosophy of science and feminisms, taken up in Simians, Cyborgs, and Women: The Reinvention of Nature (1990); Primate Visions: Gender, Race, and Nature in the World of Modern Science (1990); The Companion Species Manifesto: Dogs, People, and Significant Otherness (2003); Modest Witness@Second Millennium. FemaleMan Meets OncoMouse: Feminism and Technoscience (1997), and When Species Meet (2007); Bruno Latour's Politics of Nature: How to Bring the Sciences into Democracy (2004); Kate Soper's What Is Nature? (1995); and Sean Cubitt's Eco Media (2005).

Likewise, W. J. T. Mitchell's groundbreaking work in *Picture Theory* (1994) provides a useful, critical eye for looking at pictures and is central to the development of ecosee. Specifically, Mitchell's analysis of the relationship between word and image provides a starting point for understanding the interaction between ecospeak and ecosee, which we might correlate to verbal and visual theories of environmental discourses. Mitchell claims that he does not want to develop a "picture theory" so much as "to picture theory as a practical activity in the formation of representations" (6). Similarly, ecosee functions not just

as a nominative term but as a verb, a way of seeing ecologically. One who ecosees looks at images not just for their environmental focus and how they represent the environment but also how that image fits into the larger ecosystem of images and texts. Ecosee asks how an image interacts with other images and texts, how it shapes them, and how it is shaped by them.³

While we might try to understand images alone, that is, without attaching to them an external language that exists outside of the image frame, to do so would be problematic and might also be unethical. Images rarely occur without any connection to text, and practical experience tells us that within our culture of communication, one must understand both media to make sense of the constant images that clamor for attention. The categories but supplements them, just as Walter Ong demonstrates that the apparatus of literacy does not wholly replace orality. In writing *Picture Theory*, Mitchell explains that

one polemical claim of Picture Theory is that the interaction of pictures and texts is constitutive of representation as such: all media are mixed media, and all representations are heterogeneous; there are no "purely" visual or verbal arts, though the impulse to purify media is one of the central utopian gestures of modernism. (1994, 5)

Mitchell points out the relationship that images and text have, the "sisterhood" that binds them as familial. This relationship extends to theories of ecosee, where we must understand both how images of environments work and the lingual "messages" that might lie behind those images. Given a postmodern world where media mix and become heterogeneous representations, we might also look at this world in terms of Jean Baudrillard's (1994) theories of hyperreality and recognize that we might not be seeing what we are really seeing.⁴ In defense of his work, Mitchell goes on to claim that

for anyone who is skeptical about the need for/to picture theory, I simply ask them to reflect on the commonplace notion that we live in a culture of images, a society of the spectacle, a world of semblances and simulacra. We are surrounded by pictures; we have an abundance of theories about them, but it doesn't seem to do us any good. Knowing what pictures are doing, understanding them, doesn't seem necessarily to give us power over them. (1994, 6)

But James Elkins suggests that seeing is not simply a passive activity, and that we do have the power to change perhaps not the image itself but what that image constructs. Referring to those "take only photographs" signs we mentioned earlier, Elkins suggests that these instructions obscure the activity of seeing:

In the national parks there are signs reading, "Don't take anything but photographs." It is true that the landscape suffers only infinitesimal change when it loans me a few photons. But we mistake that for the nature of seeing. I may not change a pine tree by taking its picture, though I obviously do affect a bison or a bear by taking its picture. Some national parks have problems with tourists who lure bears with food in order to take their pictures. (And this is where there is truth in that phrase, "taking a picture.") Years ago in Yellowstone I saw a group of cars parked by the side of the road. People were standing at the roadside with their binoculars, looking out across a wide valley. When I got out my binoculars I could see what they were watching: in the far distance a man with a camera was running full-tilt after a bison. I doubt Yellowstone has any problem with people mobbing pine trees or patches of turf. What the tourists see is driven by their desire: on the one hand they want large animals, dangerous scenes, and close encounters with white fangs, and on the other they want bucolic, sublime, and picturesque landscapes. Wildness and wilderness are the two goals, and there is very little seeing of botany, geology, miscellaneous zoology, or unpicturesque landscape. Most of Yellowstone is invisible, even though it is there to be seen. (1996, 33)

We never see the whole picture, but what we see is always motivated by desire, what we want to consume as image. Looking is not the passive process of photons penetrating our pupils and reflecting upon the retina, and neither does the action of seeing simply consist of the motion of our eyes. These images, says Elkins, "are not just passively recorded in my mind. Looking immediately activates desire, possession, violence, displeasure, pain, force, ambition, power, obligation, gratitude, longing" (1996, 31).

This brings up the question of ethics and why a study of ecosee is so necessary. Even if we can claim to understand the literate aspects of environmental rhetoric or discourse, we do not yet understand how images contribute to this discourse. Sidney I. Dobrin and Christian R. Weisser claim in *Natural Discourse* (2002) that there is no nature, that humans always construct it through discourse. So Elkins claims: "Sometimes the desire to possess what is seen is so intense that vision reaches outward and creates the objects themselves . . . if the desire grows large enough, it can impel us to make what we want to see out of whole cloth" (1996, 29). Whether we want a pristine coral reef, cuddly bears selling Hummers, oil fields coexisting with Alaskan caribou, or animals applauding General Electric, any visual argument can be made out of the visual cloth that is the environment, because in the end the environment is just another image to be taken. This does not mean that other materials are not physically taken from the environment, but that this kind of taking is predicated on the taking involved in the desire that accompanies seeing in the first place.

As we hope this collection makes clear, ecosee is not just a phenomenon of visual rhetoric that exists out in the world but is also a way of seeing. But since ecosee looks for rhetoric in the visual, it does not do so for purely hermeneutic reasons but also heuretic ones. If activism is inherent in any environmentally charged mode of inquiry, then the activist using ecosee asks not just what an image means but how one can use its rhetoric and composition techniques in order to construct one's own images. In this way, ecosee shares much with ecocomposition, and the latter should include how ecosystems of writing also include images and, necessarily, how to write images within writing environments. We say "write" images here, because if we follow the grammatological argument made by Ulmer, then ecosee is already ecocomposition, since writing images is the next step in the evolving language apparatus. If, as Elkins shows, seeing is an (act)ivity, then there is hope that it can lead to new kinds of activism, ones that are supported by the Internet and Debord's spectacle.

The chapters that make up *Ecosec: Image, Rhetoric, Nature* are organized into four parts in an attempt to bring together similar positions, arguments, and issues. We would like to think that the organization of this book emerged organically, providing a logical navigation through the pieces, but it did not.⁵ Of course, this organization is artificial, used for convenience; the chapters themselves are more dynamic than the organization suggests, more sophisticated than the rubric into which we have forced them. The relationships between the chapters, the possibilities of what they suggest, and the work begun by the contributors toward ecosee require that we look beyond this rubric to other textual ecologies. To limit reading these contributors' work to the framework imposed does a disservice to the possibilities of what they present here, and we do not mean to limit their possibilities through this organization.

Part 1, "How We See," brings together five chapters that initiate our conversation of ecosee. In "A Rhetorical Look at Ecosee," Sean Morey addresses some of the rhetorical features that ecosee shares with environmental rhetoric, specifically that discussed by Killingsworth and Palmer in *Ecospeak*. However, considering scholars such as Gregory L. Ulmer, Roland Barthes, and W. J. T. Mitchell, Morey suggests that environmental images have their own logic, and that a visual rhetoric of ecosee cannot depend upon traditional notions of rhetoric in order to explain it. Ultimately, in order for any debate to occur through ecosee, Morey explains, we must not only be able to read such images about the environment, but we must also be able to make (and teach to make) these images as well.

Bart H. Welling's provocative and thoughtful "Ecoporn: On the Limits of Visualizing the Nonhuman" examines ecopornography, a concept that describes nature-centered photography as having parallels to human-based pornography. Through his article, Welling expands upon the concept of ecoporn, noting that "ecoporn—*as*—porn places the viewer in the same asymmetrical, sexualized relationship to its subjects as standard pornography, even if its primary goal is not sexual arousal." Ultimately, Welling argues that environmentalists need to rethink the human place in its relationship to these nonhuman subjects and develop new visual practices that break out of the commercializing, anthropocentric goals of ecopornography and can help us think up new ways of seeing a nature that "looks back."

In the insightful "Ecology, Images, and Scripto-Visual Rhetoric," Heather Dawkins makes the case that art historians, who usually focus on fine and experimental art that is considered antirhetorical, should also analyze conventional images that often function as a means of persuasive communication. However, much analysis that art historians do overlaps with rhetorical studies. As an example of such rhetorical readings, Dawkins examines how images function within the environmental rhetoric of the 2005 Greenpeace calendar, the pictorial book *Massive Change*, and how both differ from images in Rachel Carson's *Silent Spring*. She concludes that the meaning of these images is produced by the interaction of image and text, what she calls a "scripto-visual matrix."

Spencer Schaffner's "Field Guides to Birds: Images and Image/Text Positioned as Reference" looks at the visual construction of nature by examining field guides to birds. In his intriguing chapter, Schaffner outlines the discrete visual elements that contribute to the distinct forms of visual classificatory discourse in contemporary birding field guides. While field guides are usually thought of as reference material, Schaffner explains that they present images that are not just representations of birds but create taxonomic expectations for the bird watcher that have an impact on how the watcher understands nature. Field guides to birds, Schaffner explains, provide a "taxonomic authority" that produces "specific ways of considering and visualizing the environment."

In the illuminating chapter "Eduardo Kac: Networks as Medium and Trope," Simone Osthoff examines the work of Eduardo Kac, offering a brief overview of his art in general as well as focusing on specific works: *Rara Avis, Time Capsule*, and *Rabbit Remix*. She argues that Kac's work influences both the understanding of the natural environment and the "environment of art," and that not only does Kac's art exist in a network and create a network, but also that his theoretical essays "constitute an intrinsic part of his networked ecology," showing the interrelationship between image and text.

Part 2, "Seeing Animals," begins with Cary Wolfe's remarkable chapter, "From Dead Meat to Glow-in-the-Dark Bunnies: Seeing 'the Animal Question' in Contemporary Art," in which he explores two questions: one about the ethical standing of nonhuman animals, and the other about the difference that a particular artistic strategy makes for representing these animals. In this chapter—tied directly to his ongoing projects that pose the "question of the animal"—Wolfe explores these two questions primarily by contrasting the work of two artists, Sue Coe, whose work *Dead Meat* depicts various scenes of animals slaughtered in factory farms, and Eduardo Kac, specifically his works *The Eighth Day* and his transgenic art such as *GFP Bunny* (a transgenic rabbit that glows under ultraviolet light). Wolfe compares what these artists bring to the viewer and argues that while they both offer posthumanist understandings of nonhuman animals, they do so in very different ways, and with different effects.

Following on the heels of Wolfe, Steve Baker's intriguing chapter, "'They're There, and That's How We're Seeing It': Olly and Suzi in the Antarctic" furthers the work he began in *The Postmodern Animal*, addressing the works of Olly and Suzi, British artists who must go into the environments of the nonhuman animal subjects they depict in order to artistically represent them. In his chapter, Baker focuses on Olly and Suzi drawing leopard seals in the Antarctic and argues that over the message or intention produced by a photograph, art can only add particularities, not generalities. Olly and Suzi have to experience the environment of their subject, for it is only in this particularity that it can be understood, and this understanding itself is particular, an understanding that is "how they're seeing it." Their art, by providing this particular, offers a disruption of the general way that humans look at animals.

Part 2 concludes with Eleanor Morgan's "Connecting with Animals: The Aquarium and the Dreamer Fish," in which she makes the important argument that to look at nature is to get caught up in a system of scientific production, mythical production, and material production. Observing the natural, she argues, transforms it. Moving from the capture of the rare dreamer fish to its storage in the Royal British Columbia Museum, Morgan asks the vital question, "How do we look at nature?" She reflects on the inherent dangers of looking, and in doing so, she works to develop a theory that casts animals not as objects of our looking but as activity.

Part 3, "Seeing Landscapes and Seascapes," opens with Pat Brereton's inventive chapter "Farming on Irish Film: An Ecological Reading," in which Brereton, working from methods he developed in his earlier book *Hollywood Utopia*, provides a close reading of three Irish films—*The Field*, *The Secret of Roan Inish*, and *How Harry Became a Tree*—in order to argue that ecology has become a "new, all-inclusive, yet contradictory meta-narrative," that has been present in mainstream film since the 1950s. Brereton's examination of Irish film works to the end of exciting an awareness of interdependence with environment that is visually manifest in film media.

Teresa E. P. Delfin's "Postcards from the Andes: Politics of Representation in a Reimagined Perú" perceptively argues that visual media that portray nature often have as much to say about what nature is as what it is not; visual media work to create a pleasant disorientation between that which is in the frame and what is immediately outside it. But these generalizations cease to hold true, Delfin contends, in cases of third world visual representations of nature. Rather than creating a case for its own difference, images of nature from underdeveloped regions often appear limitless, regardless of the physical imposition of frames, borders, and edges. Third world landscape photographs also are frequently contextualized or captioned to appear normal or native-an everyday part of a context of underdevelopment. This is nowhere truer than in the case of postcards, Delfin explains. Focusing her study of nature-based Peruvian visual rhetoric with attention to the hegemonic nature of literacy in twentieth-century Peru, Delfin maintains that due to inadequate access to education, coupled with the considerable role that literacy has played in the continued subjugation of Peruvian campesinos, writing has been inaccessible as a technology for peasant self-representation. In the absence of a contemporary *campesino* literature, Delfin considers the "rival media" of landscape photography and indigenous portraiture in Peruvian *peasant* self-representation.

Kathryn Ferguson, in her thought-provoking contribution, "That's Not a Reef. Now *That's* a Reef: A Century of (Re)Placing the Great Barrier Reef," examines visual images as supplement to the real vis-à-vis the Great Barrier Reef. Beginning with Saville-Kent's first black-and-white photographs of the reef's creatures sent to London in 1891 and moving through to Digital Dimension's integration of 3-D animated

images in their 1999 *Ocean Empires*, Ferguson questions notions of authenticity and mimesis in a historically contextualized century of visual images of the Great Barrier Reef. Limiting her analysis to images that specifically lay claim to accuracy and representations of the "real world," she considers the implications of the fact that these images of the reef always refer to something that has preceded them and are thus never the origin but supplement and exceed the origin in ways that may well survive the origin.

The final part of *Ecosee*, "Seeing in Space and Time," begins with Quinn R. Gorman's "Evading Capture: The Productive Resistance of Photography in Environmental Representation," a detailed consideration of a double bind presented through visual representation. Gorman contends that this double bind offers only two options, both of which result in an undesirable "capture" of the world. We either allow the world to be "captured" by the discourse of realism, Gorman posits, which asserts the competence of representational mimesis to reproduce the world in words, or we allow it to be "captured" by the discourse of textuality, which claims that the interests of a natural Other are inevitably and utterly invaded by our own cultural baggage. Within this context of problematic environmental representation as a whole, Gorman postulates, photography perhaps holds a potential place as the medium that uniquely supplies the ground for an ethics that refuses the very *possibility* of capture.

In "The Test of Time: McLuhan, Space, and the Rise of *Civiliza-tion*," Tom Tyler forwards the idea that Marshall McLuhan, the onceheralded "oracle of the electronic age," explored, the social and cultural environments created by media technologies and the modes of perception engendered in those who found themselves immersed in media culture. In this chapter, Tyler makes the powerful argument that digital games produce a form of electronic "acoustic space," an instantaneous, inclusive, decentered environment quite distinct from their carefully realized but ludologically irrelevant backstories. Taking as a case study Sid Meier's *Civilization* series, Tyler examines the involving engagement and awareness that digital games require, as well as the equivocal environmental rhetoric of this enduringly successful title.

In the penultimate contribution, Julie Doyle astutely contends in "Seeing the Climate?: The Problematic Status of Visual Evidence in Climate Change Campaigning" that the effectiveness of visual rhetoric as a persuasive discourse within environmental campaigning reached a crisis point in the history of climate change communication. International environmental groups such as Greenpeace often are dependent upon the photographic image to provide evidence of environmental degradation and threat in order to persuade the public and governments to take

action. As a result of this reliance, Doyle argues, efforts over the last decade to bring awareness to a skeptical global audience of the potential impacts of human-induced climate change were constrained by the very lack of visual evidence about this issue. This lack calls attention, on the one hand, to the problematics of communicating an "unseen" environmental issue such as climate change within the confines of the visual rhetoric of much environmental discourse. At the same time, she explains, these limitations are inscribed more specifically by those of photography as a discourse of visual evidence and truth, unable to visualize, and thus make "real," future environmental threats. Doyle argues that the history of climate change campaigning underlines the interconnections and constraints of both visual and environmental discourse in the communication of this global concern. The lack of visual evidence for events such as global warming, she explains, reflects broader cultural investment in "seeing" and the visual as a primary form of knowledge, while illustrating the privileged role of the visual within discourses of "nature" and the environment.

Following the selections in the four parts of *Ecosee*, we are privileged to be able to include an Afterword to the collection supplied by M. Jimmie Killingsworth and Jacqueline S. Palmer. This Afterword brings together the contributions of *Ecosee* to consider possibilities regarding what work like this might lend in the future. Turning to their own work in visually representing roadkill, Killingsworth and Palmer offer a contextualization, placing the work of visual representation in ecological relation to verbal communication, writing, history, mythology, and technology.

In looking at environmental images specifically, we hope that others can develop theories about them and at least help us understand how we visually and imagetextually represent nature, places, spaces, and environments. While this may not allow us to change our relationship to the image, to give people a power of the image, it at least provides an opening to begin understanding the role of the visual in the political construction and control over nature. Early in the Introduction to *Ecospeak*, Killingsworth and Palmer claim that their book offers "little more than a point of departure for further research" (1992, 2); this, too, is one such departure.

Notes

1. We use the terms *environmentalist* and *anti-environmentalist* as generalizations for different groups that do not necessarily share the same viewpoints. For example, environmentalists include preservationists and conservationists,

even though the two groups approach environmental activism from different perspectives. While also a generalization, preservationists wish to save nature for its intrinsic value, while conservationists wish to "conserve" nature to make it available for social (human) needs.

2. Of course, this argument is flawed, in that what we really mean to say is that sighted individuals experience nature through seeing. One of the immediately recognizable flaws of ecosee is its failure (not yet) to account for nonvisual images and to address the role of visual arguments for those with sight disabilities. Similarly, ecosee, thus far, fails to address issues of access regarding visually impaired "seers" of nature. Dobrin takes up this issue in *Cracks in the Mirror*.

3. Just as the discourse of ecology provides a tool for scientists to study the relationships in an ecosystem, ecosee provides a tool to understand how images function within an ecos(ee)stem.

4. See Baudrillard, 1994.

5. We wish to thank the reviewer for State University of New York Press who suggested this organizational strategy.

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