

Till We Have [Inter]faces: The Cybercultural Ecologies of *Avatar*

[A]t the end of the last decade came *The Matrix*, and *The Matrix* sort of played on this sense that we all have that maybe reality isn't real, that maybe we're living in a vast simulacrum, and so much of the movies of the '90s, say, were about managing to break through into real life, break through from this illusory life into what is real and tactile. And now we come to the end of this decade, and there's this wonderful movie out called *Avatar* in which it's only by going into this make-believe world a man can truly fulfill his potential, can rewrite history. It's sort of a Native-American parable in which we actually go back and save the Native Americans from the imperialist, capitalist forces that would wipe them out. And I just thought it was really striking that we've come about-face, and now we sort of hunger for our virtual selves, our avatars to take on, you know, the final frontier, which is maybe in our own minds.

—David Edelstein

I.

Imagine, if you can, a young girl frolicking in a color-drenched world. She spins wildly, face smeared in sunlight. She rolls gleefully down a green hillock. Peeking through the blades of grass, she spies a flower and eagerly plucks it. Hopping gingerly from stone to stone, she crosses a gurgling brook. She stalks after a doe bedded down inside a thicket. She blows on the delicate seeds of a dandelion, which scatter wildly. Climbing a stream-side tree trunk to chase after a butterfly, she slips, falls, plunges, finds herself blissfully submerged in pristine blue water. She has been baptized by nature.

Or, maybe not.

Does this girl see the surveillance cameras that have been tracking her every move? Does she notice that, moments after she leaves the thicket, the doe has been surreptitiously evacuated from the scene with a mechanical jerk? Does she realize that, moments after she picks her flower, another one sprouts in its place, identical? What she does grasp is the stark *Twilight Zone*-quality reversal that ultimately cuts off her pastoral bliss. The sunlight dims and the sky goes out. Nature, in effect, "shuts down." The little girl trudges dejectedly out of what is now revealed to have been a gorgeous simulation conducted inside a vast warehouse of synthetic space. As the girl makes her dismal exit, she passes a line of other children eagerly awaiting their own opportunity to spend a few precious moments inside virtual nature, nature which presumably no longer exists anywhere else in the world. The

next child excitedly plunges forward into the warming blaze of artificial sunlight. What had seemed like nature turned out to be nothing more than a high-tech carnival ride.

These scenes from the 2003 music video *Respire*, by the French rock group Mickey 3D, I take as a parable of our cybercultural condition (watch the video here: <http://tinyurl.com/respire23>). We fear more than just the loss of nature. We fear the technologically induced loss of an authentic *experience* of nature, and anxiety ensues. Even as the mildly eco-apocalyptic lyrics of the song (in French) suggest that humans have defiled the natural world, the video's imagery depicts just the opposite, namely, everything to which "nature-connectedness" might aspire. The most straightforward reading of *Respire* might thus go something like this: if we continue our headlong plunge into a hypermediated future, heedless of our ecological impacts on the planet, then the only nature left for our grandchildren will be the one we manufacture ourselves. In short, technology alienates us from nature, and if we are not careful, it will substitute for it.

Or, maybe not.

If the intent of *Respire* is to make viewers actually feel this "loss of nature," we should take a moment to scrutinize "nature" as it is actually represented in the video. Did I mention that the video is done entirely with glossy computer-generated imagery? Or that, in addition to idyllic pastures, fluffy clouds, and flowers just waiting to be plucked, we see this little girl not only chasing the wildlife, but actually *reclining* on an exceedingly Bambified deer, which plays pillow with no thought of resistance and who gazes back in reciprocating adoration? Or that the surveillance cameras are used to trigger pre-scripted events and thereby "story" this pastoral enclosure in accord with the participant's actions? Like the pastoral form in general, *Respire* offers us virtualized nature as if it were nature itself: in this instance, a version of cyberpastoral. Baudrillard's precession of simulacra culminates in detaching the ultimate referent, nature, from actuality. It would seem that we have already lost sight of the Earth so completely that the only nature we are able to revive is a hyperreal fusion of Disney and *The Truman Show*.

Just as *The Matrix* delights in the visual possibilities of bullet-time even as its characters decry the falsity of simulated reality, *Respire* revels in the very thing it laments. Its nostalgia for a "nature that never was" is rendered, seemingly irony-free, in full-color, high-definition computer-generated imagery. The medium is the message, and a peculiar one: *Respire's* CGI nature represents not the desert of the real, but the Eden of the virtual—a cybercultural ecology *in extremis*. In *Respire*, our yearning to return to nature is never realized but only hyperrealized, manifested through a desire manufactured by the very technologies that supplant nature in the first place.

Or maybe not. . . .

II.

Imagine, if you can, a young man cavorting in a color-drenched world. He smiles broadly, sniffs the air, runs without restraint, digs his sensitive, bare blue toes into warm soil. He sinks his teeth eagerly into a luscious purple fruit, laughing. His nine-foot-tall frame dwarfs the pale-skinned humans who scurry around him clumsily. His cyan-skinned presence runs thick with reality, his vigorous body operating in perfect connection with his native landscape.

And yet. . . .

Who are these puny humans chasing after him with clipboards? And what about all those leads dangling from his skin? When he finally closes his eyes and reawakens, startled, back inside a half-paralyzed human body enclosed in a machine interface, does he now return to his “real” self, or has his fleshly blue avatar now become more real than the feeble human “original”? Where do his loyalties lie? Like Dogen’s butterfly, is he a human dreaming he is Na’vi, or a Na’vi dreaming he is human?

The ambivalences felt by Jake Sully (Sam Worthington) in James Cameron’s 2009 film *Avatar* are shared by the viewers of the film. Like the little girl in Mickey 3D’s *Respire*, who revels in a lush, green simulation that all too soon “shuts down” and casts her back into gray reality, theatergoers experience a strange sense of loss and confusion at the end of Cameron’s film. Unlike Jake—who opens his cat-like Pandoran eyes in the final frames of the film, abandoning himself completely to his Na’vi body—the viewers are not allowed to linger on Pandora. As we walk out of the theater, we remove our 3D glasses and, like the dejected little girl of *Respire*, find ourselves mourning our lost sense of spacious connection, as if reality outside the theater had been flattened to two dimensions. As Jake himself says, “Eventually, you have to wake up” (Cameron).¹ But the question is, to what do we awaken, exactly? In *Avatar*, nature and virtuality become so inextricably bound up with each other that upon leaving the film it becomes impossible to articulate what it is exactly, that we wish to reclaim. Do we yearn for a return to nature itself? Or for a connection with hyperreal nature provided through digital immersion?

“Waking up” also means engaging with the ambivalences that arise as the intoxication of immersion starts to wear off. On the bare level of narrative, possible critiques of *Avatar* encompass issues of racism, ecofascism, imperialist nostalgia for the primitive, and the use of outworn stereotypes of natives as Rousseau’s “noble savages.” Confusion also arises over the film’s seemingly schizoid environmental stance. Cameron’s storyline is unabashedly ecocentric, and its premise of a white colonist’s “going native” to defend tribal peoples against corporate greed for the most part reprises environmentally oriented films like *The Emerald Forest* (1985) and *Dances*

with Wolves (1990). As a result, it is no small irony that Cameron’s ecological, anti-consumerist message occurs in a film that netted over a billion dollars in the first few weeks of its release (over two billion as of this writing) and that plastic mass-produced *Avatar* action figures now come with McDonald’s Happy Meals. Just as Jake initially masquerades as a friend to the Na’vi, such conflicting allegiances make *Avatar* seem guilty of dissimulating its own intentions.²

One can respond to *Avatar*’s paradoxes by ignoring them, by becoming derailed by them, or—in my view, a more helpful route—by considering whether such contradictions might in fact be emblematic of our conflicted cybercultural condition. Like the little girl in *Respire* and the protagonists of *The Matrix*, viewers revel in the technological spectacle that the film’s very masquerade makes possible—even if its high-tech, consumerist form grates violently against its low-tech, ecological content. More to the point, if ours is indeed “the age of mediated nature” (Nielsen), then such paradoxes themselves raise intriguing ecocritical questions. Specifically, what effect might *Avatar*’s digital representations of nature have on our relationship with the Earth? Thrown into high-definition, three-dimensional virtual nature on the distant planet Pandora, the viewer feels less like a spectator and more like a participant in the conflict between the native Na’vi and the invading alien humans—siding, in all likelihood, with the Na’vi. This reversal of allegiances happens less because of the bare force of narrative, I would argue, and more because of how the immersive filmic form operates on the viewer on the visceral level. Through the interface of 3D glasses, we sensuously participate along with *Avatar*’s protagonists in a landscape that feels palpably real, vibrant, reciprocating of one’s presence, and—as a result—Pandora becomes a world worth defending. However much we viewers begin as aliens at the start of the movie, we, too, “go native.” Understood in this paradoxical way, *Avatar* promises to open our eyes, enabling us to “see” with ecological vision through the lenses of virtuality. Here I want to see to what degree *Avatar* might fulfill—or fail to fulfill—this promise.

Nature and Cameron’s Fleshly Avatar

In the opening scene of *Avatar*, Jake dreams he is flying, and we soar along with him over endless mist-filled canopies of trees. It’s a bold dream, for in reality not only is Jake unable to fly—he can’t even walk. His legs hang lifeless, paralyzed by a spinal injury he suffered in combat as a Marine. The trees themselves are yet another dream-conjuration, for in Cameron’s dystopic cinematic future, the Earth has been utterly laid waste. An early script treatment of *Avatar* by Cameron shows just how bleak and *Blade Runner*-like Jake’s home world has become:

The Earth is dying, covered with a gray mold of human civilization. Even the moon is spiderwebbed with city lights on its dark side. Overpopulation, overdevelopment, nuclear terrorism, environmental warfare tactics, radiation leakage from power plants and waste dumps, toxic waste, air pollution, deforestation, pollution and overfishing of the oceans, global warming, ozone depletion, loss of biodiversity through extinction . . . all of these have combined to make the once green and beautiful planet a terminal cess-pool. (Cameron, "Avatar Scriptment" n.p.)

In the face of such desolation, Jake's dreams compensate both for the wasting of his own body and for the wasteland that encases him on a desolate Earth. To escape, he turns eagerly to the liberating (however illusory) possibilities of a virtual dreamscape: "I was free," he says. But just as in *Respire*, the mirage of the virtual all too quickly dissolves: "Eventually, you have to wake up," says Jake (Cameron).

Waking up to reality is a motif that Cameron has made hard to miss, and each time it occurs in *Avatar*, we see a close-up of Jake opening his eyes and we witness his re-awakening back inside his all-too-real paralysis and enfeeblement. But Jake's truncated integrity is more than personal. It can be universalized to include the entire human race, which has become so desperate for survival that when in the film's fictive future we have no planet of our own left to ravage, we strip-mine another world light years away. Set in the year 2154, *Avatar* takes place on this other world: Pandora, a lush, Earth-like moon orbiting the gas giant Polyphemus, four-and-a-half light years from Earth. Buried within its sublime landforms (including the famous "floating mountains of Pandora"), Pandora holds vast rare mineral reserves (in particular, a room-temperature superconductor wryly dubbed "unobtainium"³) which Earth-based corporations have begun extracting in hopes of solving the energy crisis back home. But the colonizing humans meet resistance. Pandora is enveloped in gases toxic to human life and brimming with dangerous, enormous wild creatures such as Titanotheres (massive, highly territorial hammerhead grazers) and Thanators (gigantic, plate-armored predators). But the earthlings find their most potent opposition in the nine-foot-tall, blue-skinned humanoid natives, the Na'vi, whose arrows taunt the new arrivals, sticking out defiantly from the massive tires of earth-mangling machinery.

When especially rich reserves of unobtainium are discovered beneath the Na'vi's "hometree," the RDA (Resources Development Administration) wants the Na'vi to get out of the way, and attempts to mediate negotiations by offering others who resemble the Na'vi as negotiators. The corporation does this by engineering giant hybrid human-Na'vi bodies, avatars, operated remotely by human controllers. Corporal Jake Sully unwittingly becomes

the chief avatar negotiator when his vastly better-educated twin brother is murdered shortly before takeoff—the twins' similar neurology makes Jake the only possible fit for the hybrid Na'vi body already grown and waiting for its controller. Upon waking from cryogenic sleep and landing on Pandora, Jake quickly finds his allegiances split between the bellicose Colonel Miles Quaritch (Stephen Lang), head of mining security forces, and Dr. Grace Augustine (Sigourney Weaver), a xenobotanist and primary force acting for a peaceful resolution between the RDA corporation and the Na'vi. Parker Selfridge (Giovanni Ribisi), the corporate administrator, couldn't care less about how the problem with the "blue monkeys" is solved, just as long as the RDA gets its unobtainium.

Pandora's landscape is sublime, surreal, and—for the moment—largely unsullied. Like Mickey 3D's music video *Respire*, *Avatar* uses state-of-the-art computer-generated imagery to represent the wonders of this natural world, but with a striking difference. Where *Respire* laments the disconnection from nature caused by technovirtuality and thus becomes anxious at the threat of immersive simulations ultimately substituting for nature entirely, *Avatar* makes virtuality the very means by which humans interface with nature in the first place. Earth is wasted, and Pandora is lethal (for feeble human lungs, at least), so the only way to reconnect humanity and wild nature is to move beyond actuality into a virtualized medium of terrestrial communion—the avatar.

Avatar reconnects humanity with nature through the logic of not just one but three interface structures which nest inside one another like Russian matryoshka dolls. First, the theatergoer viewing the film finds herself saturated in three-dimensional imagery and digital sound through a combination of special polarized glasses and discretely rendered images produced by Cameron's fusion-camera system. Second, within the film's initially human-dominated narrative frame, Jake interfaces with the world through a wheelchair, which he eagerly forsakes to control remotely his blue, nine-foot-tall avatar—all the while, his "real," now puny-seeming, human body lies supine inside a sarcophageal control interface that resembles a tanning bed (one which will soon create the similar effect of re-coloring his skin). Once made virtually present inside his muscular avatar body, Jake finds himself utterly liberated, his legs vigorous rather than paralyzed, his bare blue toes digging gleefully into native Pandoran soil. The third interfacing that occurs "inside" these other two happens when Jake's avatar links with Pandora's wildlife itself through the living tendrils on the end of his braid of hair.

But before Jake experiences such intimate neural connections, he finds himself lost and alone, separated from his party after an attack by a Thanator sends him flying over the edge of a cliff and down a river. The first thing Jake does is make tools—a sharpened stick and a torch—to fend off the

threats he perceives in the encroaching Pandoran darkness. Attacked by a pack of viperwolves, Jake survives only after being rescued by the young Na'vi woman Neytiri (Zoë Saldana). She immediately expresses her irritation—"You are like a baby, making noise, don't know what to do" (Cameron)—and throws his torch into the water, dousing it. Jake's fear of the darkness quickly gives way as he watches the entire forest floor light up through its own bioluminescence, its radiance responding to his own touch by igniting brilliantly. His over-bright, self-generated torchlight had in fact kept him from seeing the light already shining everywhere around him. Jake's discovery about the blinding effects of technologically amplified vision echoes that made by Edward Abbey in *Desert Solitaire*:

Again the fire begins to fail. Letting it die, I take my walking stick, and go for a stroll down the road into the thickening darkness. I have a flashlight with me but will not use it unless I hear some sign of animal life worthy of investigation. The flashlight, or electrical torch as the English call it, is a useful instrument in certain situations but I can see the road well enough without it. Better, in fact.

There's another disadvantage to the use of the flashlight: like many other mechanical gadgets it tends to separate a man from the world around him. If I switch it on my eyes adapt to it and I can see only the small pool of light which it makes in front of me. I am isolated. Leaving the flashlight in my pocket where it belongs, I remain a part of the environment I walk through and my vision though limited has no sharp or definite boundary. (Abbey 15)

In the same way that Ed Abbey forsakes the flashlight to allow himself to merge his awareness with the sky and the Earth, Jake's forced relinquishment of the torch allows Pandora to emerge in its own light. Jake is thus unable to "see" until his self-created forms of illumination are discarded.⁴

The wild landscape of the real in *Avatar* operates on a sublime scale that not only dwarfs humanity, but also defiantly refuses to meet the alien colonizers on their own terms, in these respects echoing C.S. Lewis' *The Great Divorce* and William Faulkner's *The Bear*. In these stories, the human protagonists can only dwell in wild reality by first growing real themselves, by forsaking the spindly trappings of human civilization through what Lawrence Buell terms "the aesthetic of relinquishment" (Buell, *The Environmental Imagination* 143). Lewis' nameless protagonist encounters the ontologically thick foothills of heaven through a dream vision which transports him into a

realm far exceeding the capacities of his puny frame. He emerges into a luminous world where the grass is too sharp for his shadowy feet to tread and the flicking of dewdrops threatens to penetrate like shrapnel—and its super-human inhabitants, the "bright people," loom larger than life, like the Na'vi. He discovers that only by shrugging off the feeble virtuality of independent self-will can one grow the calluses needed to tread the hostile landscape of this visionary heaven. Faulkner's Ike McCaslin is likewise only able to "see" Old Ben, the Bear of the book's title, by relinquishing technological interfaces like his rifle, snake-stick, and compass, apprenticing himself to the wild which the Bear embodies.⁵

Cameron's Pandora, like Lewis' heaven and Faulkner's "big woods," is hellish and terrifying for those unequipped to dwell there. It requires a kenotic outpouring of oneself in order to be born anew, with "new flesh" refilled and made capable of inhabiting its solidity—even if this renovation is accomplished by artificial means. If Jake's first rebirth occurs when he awakens from his cryogenic encapsulation en route to Pandora, it happens a second time after he enters the sarcophagus of the avatar control interface and finds himself awake inside a vibrant new blue body. Jake's controlling of the hybrid human/Na'vi avatar might seem like a cheap shortcut to his enlightenment, but it ultimately proves to be anything but a free meal ticket. Jake is berated constantly by the Na'vi for his helplessness and ignorance, despite the fact that his body so much resembles theirs. Neytiri's mother laments the difficulty of teaching humans like him, saying "We have tried to teach other sky people. It is hard to fill a cup which is already full." To which Jake responds, "My cup is empty, trust me" (Cameron). His emptiness ultimately proves his greatest virtue, for it requires so little "pouring out" on his own part. Neytiri "fills his cup" by teaching him how to use his avatar body to track, hunt, and ride the massive wild terrestrial and avian creatures of Pandora. In *Avatar*, the condition of virtuality—as opposed to the downloadable gnosis of *The Matrix* and *Dollhouse*—thus provides no easy prosthetic substitute for the acquisition of skill through an apprenticeship to the real.

Crucial to his coming of age as one of the Na'vi—and for a re-visioned experience of "connection" on the audience's part—Jake must interlink with Pandora's wild creatures through the braid extending from the back of his head. Functioning as an extended nervous system, this "neural queue" allows him to interface intimately with the six-legged direhorses the Na'vi ride, as Neytiri explains: "That is *Sa'helu*, the bond. Feel her. Feel her heart beat. Her breath. Feel her strong legs. You may tell her what to do, inside. For now, say where to go" (Cameron). Of course, it is not long before Jake is thrown from the armor-plated saddle—for he is not the only one "in control." So in the same way that his avatarhood grants him no free pass to

enlightenment, so too his neural queue creates only the possibility of union, not its actuality. He must first feel before he instructs, he must learn to “see” before acting. In order to prove himself as a hunter, he then bonds himself exclusively with an *Ikran*, a flying banshee. Ultimately, both Jake and Grace connect through their queues to the vast biological network of Eywa, the Gaian mother goddess of Pandora itself.⁶ The crucial role of such relationally forged neural connections among the Na’vi shows just how much their sense of “I” depends on an intimately expressed sense of “we.”

One of the most striking aspects of *Avatar* is how technological interfaces and “natural” interfaces mirror one another. Jake’s human form is twice removed from the landscape of Pandora. He must first link neurologically to his avatar before linking yet again through his avatar’s neural queue to Pandora’s creatures. The hair-like neural queue works precisely as media do under Marshall McLuhan’s conception of technology as “the extensions of man,” as this early treatment of the film shows.

Tsu Te flips his head and catches the end of his long queue in one hand. With the other hand he gently takes one moth-like antennae of his direhorse, and bends it down toward him. Next, he does an amazing thing . . . he touches the end of his hair to the end of the antenna, which looks like a feather. The “hair” comes alive, rapidly interweaving with the feather-like tendrils. They knit together, forming what Josh [a.k.a. Jake] realizes is a neural interface, a direct plug-in to the horse’s nervous system. In one fluid move, Tsu Te hooks his bare foot into the bottom of the surcingle and vaults up onto the back of his direhorse. He grips the horse’s flanks with his legs, and guides it with direct motor commands from the neural hookup. The animal has become an extension of his own body. (Cameron, “*Avatar* Scriptment” n.p.)

It remains unclear in the film just how much control the direhorse- or banshee-rider has over his extended body, and how much the mount itself participates in (or resists) such control, but their bond is supposedly rooted in some measure of organic partnership rather than just external control.⁷ When neural interfaces meet and the bond is made, eyes open impossibly wide: the participants now stare into one another in a widened, reciprocating awareness—a crucial instance of what the Na’vi mean by saying “I see you.” This sense of “prosthesis as partnership” moves virtuality away from self-enclosure toward the relationality of art and nature as conceived by William Morris in the late nineteenth century, or in the “New Flesh” of David Cronenberg’s hybrid technological bodies.

This fantasy of fusion, however, is highly susceptible to critique. Both *Sa’helu*, “the bond,” and the notion of “I see you” link the film’s narrative to its form through a techno-metaphorical metaphysics of presence. While Jake

plugs in his neural queue in order to fuse his awareness with Pandora’s wildlife, viewers don 3D lenses that transform the flat cinema screen into an open window, allowing us to “see” by looking into (not just at) Pandora itself. The result is a naturalization of digital nature through the sensation of “sharing space” with the plants, animals, and landscapes of Pandora. The Na’vi’s neural queue likewise appeals strongly as an interface because it promises connection without language, and without the possibility of miscommunication. Whereas “I see you” seems to idealize transparency, it nonetheless leaves some space for alterity. (One might in fact construe “seeing into” another in terms of *regard*, as acknowledgment of another in her or his Levinasian otherness rather than in terms of complete access in transparent fullness.) But the neural links of the Na’vi on the contrary seem to abolish such distance, and aim to fulfill fantasies of escape from the logic of supplementarity. In *Speaking Into the Air*, John Durham Peters reiterates Derridean skepticism over the possibility of such fusion, saying, “The mistake is to think that communications will solve the problems of communication, that better wiring will eliminate the ghosts [. . .] of wordless contact” (9).⁸ With *Sa’helu*, *Avatar*’s narrative responds to the anxiety of lost connection as if the only escape from the self-enclosure of narcissism were telepathy.⁹ Through the form of 3D visual effects, *Avatar* seeks to fill the impasse severing viewer from viewed, creating not just a sense of presence (i.e., the sense of “being before”) but immersion (i.e., “being within”). Unlike a reader of a literary text, the viewer of *Avatar* needs contribute little imaginative or critical work to make his experience come alive. He is instead baptized in an overflow of digital imagery that simultaneously fills him from the inside. The ideal viewer is thus, like Jake, one who starts out as an empty vessel that, through potent sensuous connection, ultimately brims over with passion for Pandora.¹⁰ Like the protagonist Case in William Gibson’s *Neuromancer*, Jake—and arguably, the viewer—are hollow shells awaiting technological re-embodiment. In this way both the narrative and the form of *Avatar* conspire to authorize the problematic notion that our sense of disconnection from nature and embodiment can be healed by yielding to technologically mediated sensation.

However problematic they may be as guarantors of nature-connection, the nested interfaces of *Avatar* create a fascinating interplay between the reality of the virtual and the virtuality of the real. In a Platonic schema, one would be tempted to read each one of *Avatar*’s sub-interfaces as connecting to something progressively less and less real. But instead, the logic of *Avatar* is hermetic: the way out is the way-in. The neural queue emerging from the back of his avatar’s head, while echoing Neo’s headplug in *The Matrix*, here becomes the means for connecting Jake (and the Na’vi at large) to something ostensibly more “real,” more sensitized, and more whole, not

less. Like many an online gamer before him, Jake soon finds his virtual form and the world that his avatar inhabits to be vastly more compelling than his native human reality: "Everything is backwards now. Like out there [on Pandora] is the true world, and in here is the dream" (Cameron). The viewer, upon seeing the film, experiences a similar confusion resulting from his own fusion with the digital landscape.

Although *Avatar* insists on the validity of using virtuality as a means of attaining ecological connection, it by no means puts all such interfaces on equal footing. Jake's fleshly avatar finds its nemesis in the most visible human/mechanical interface in the film, the massive AMP exoskeleton worn and operated by Colonel Quaritch. Four meters high and three meters wide, this *mecha*-styled, metallic "amplified mobility platform" augments human capacities in strength, size, durability, and locomotion—not to mention as a killing machine. The acronym "AMP" makes a peculiarly appropriate McLuhanism, for this machine simultaneously *amp*-lifies and *amp*-utates its user.¹¹ Along with its augmentation of human capabilities, the AMP is tightly enclosed (to protect the wearer from Pandora's noxious gases) and utterly insensitive to its environment. As such, it is a case study in the "insentient iron" lamented by Connie and Mellors in *Lady Chatterley's Lover*. The human inside feels nothing as its enormous metal feet trample vegetation and its built-in cannon rips through the wildlife and natives—a telling metaphor for humans like Quaritch and Selfridge who neither see nor feel the consequences of their mercenary assault on Pandora on behalf of the RDA. (The "R" for "resources" in RDA is key here, for the leprous insensitivity that ensues from wearing an exoskeletal combat suit perfectly represents the effort to construe another world purely in terms of its extractive use-value rather than as a "thou.") With the AMP, the poetic lament of Gerard Manley Hopkins that the foot "no longer feels, being shod" ("God's Grandeur") is extended to numb not only the feet, but the entire insulated human body. Like Sir Clifford Chatterley's motorized wheelchair, the AMP obeys one's will without having a corresponding will of its own, apotheosizing both Sir Clifford Chatterley's mechanistic goal of "no steeds at all, only an engine!" (Lawrence 179), and Marinetti's slogan "No more contact with the vile earth!" (qtd. in Virilio 73). Sir Clifford, who owns a colliery, likewise links extractive industry with a paralyzed body and a desensitized, exoskeletal means of moving over the Earth. And like the homestead-razing tractor drivers from Steinbeck's *The Grapes of Wrath*, the AMP operator is sealed off from feeling just how destructive he becomes, once welded to the machine.

Jake's own fleshly interface, of course, works differently. Like Kuno in E.M. Forster's dystopian fable "The Machine Stops," Jake quickly discovers that making contact with the landscape through carnal participation and muscular exertion creates an affection and bond with the forest that a metal

machine does not. Ultimately, Jake's fleshly feeling grows into a full-bodied resistance to the RDA's mechanistic paradigm which sees a living world only as material ready and waiting to be quarried. "There are many dangers on Pandora," says Grace in Cameron's early treatment, "and one of the subtlest is that you may come to love it too much" (Cameron, "Avatar Scriptment" n.p.).

This love for Pandora comes from an enduring, sensuously perceived, reciprocal connection with the landscape. However technologically "primitive" they might seem in comparison to the colonizing humans, the Na'vi in fact depend upon sophisticated neural networking as they act upon their world and in turn feel their own effects upon it. A cybernetic feedback loop cycling through the extended nervous system of the Na'vi ensures that they remain in a closely communicative relationship with their ecological context—for any actions that disrupt it unduly are dampened through the experience of negative feedback. In short, by being "plugged in" to Pandora, the Na'vi feel joy in acts that promote Aldo Leopold's "integrity, stability, and beauty" of the biotic circuit, and pain otherwise. In stark contrast, use of an interface which, like the AMP, lays waste to the landscape without feeling anything, results in a profound numbness that McLuhan calls "Narcissus as Narcosis."¹² Selfridge and the RDA fail to *see* precisely because the interfaces with which they act upon the world keep them safely insulated and untouched in return.¹³ When Grace attempts to explain to Selfridge how the entire world of Pandora matters, how it comprises a vast global network filled with memories shared by all the Na'vi, Selfridge responds, "What the hell have you people been smoking out there? They're just goddamn trees" (Cameron). The result of such insensitivity is humanity's revisiting on a new world the very same devastation it wrought back home on Earth.

Dwelling in a Cybercultural Ecology

Even on the most general level, the consequences of a numbed interface are horrifying, and reveal that the most intense, self-destructive suffering is created, ironically enough, precisely by those for whom painful feedback is *absent*. Physician Paul Brand explains how children born without pain receptors bite the ends off their own fingertips in order to paint bloody swirls on the sheets, chew and lacerate their tongues, and twist their ankles until they break—heedless of the damage they cause themselves (3). Brand discovered that because they feel no pain in their extremities, lepers likewise use their bodies to perform acts that bodies are simply not meant to do. He relates how one leper would retrieve food cooked in hot coals with his bare hands (his hands having been reduced to suppurating knobs at this point, really), because he didn't feel himself being burned. Brand lectured the man

about how important it was to take care of his hands, but the man didn't seem to care, because without sensation, he saw his hands more as disposable tools than as parts of his own body. Brand encountered another leper who was running—seemingly unaware—on a badly dislocated ankle. Such cases were typical of Brand's experience with leprosy, and they had in common what he called "an utter nonchalance toward self-destruction" (7).

Such harsh examples show how the sensitivity of the interfaces we use to interact with the world makes all the difference in how we treat that world—and ourselves. The fleshly avatar body and the AMP suit are not neutral alternatives, but poles apart, each one representing a distinctive mode of virtuality—modes as divergent as Morris' earthy, communal conception of virtuality in *News From Nowhere* as compared with Huysmans' isolated self-enclosure in *A Rebours*. Like lepers, we humans all too often express an "utter nonchalance" toward global self-destruction because, unlike the Na'vi, we suffer from McLuhan's "Narcissus as Narcosis." This is to say that our nerve endings typically either terminate at the skin or extend only to include the realities we ourselves construct. We mangle our Earth just as pain-free children mangle their fingertips, not because we are evil people (usually), but simply because our boundaries of feeling are too narrowly drawn around us. Like the leper, our nerves do not sense the pain of a world that is simultaneously an extension of us and us of it. Society tailors us with form-fitting AMP suits, even if only metaphorical ones.

To care for the Earth and ourselves, then, *we need interfaces that feel*—and for all its fictiveness and inconsistencies, *Avatar* provides a hopeful model. Whereas the bond of *Sa'helu* succumbs to a fantasy of telepathic union, Jake's avatar keeps the logic of supplementarity in place by thrusting him into a system of differences that he has to negotiate through painful experience. Through the fleshly avatar body, virtuality makes possible a highly intimate, sensuous connection to the landscape—a medium for dwelling in an ecology that retains its own irrevocable otherness. When Jake touches Pandora, Pandora touches back, and he feels it. In this way, *Avatar* steers the question of technologically mediated contact away from the issue of *authenticity* and instead towards *felt relationship*. Rather than asking if a particular interface constitutes a "genuine" mode of contact, it asks instead, *with whom are we networked, anyway? Does this interface connect me only with faux-others in a destructive loop of self-reflecting narcissism? Or does it make me able to gaze in reciprocation at a human—or more-than-human—other? Does this interface promote my ability to feel? Through this interface, am I able to look at and into fellow animals, plants, waters, soils, and stones, and, like the Na'vi, say "I see you"?*

The RDA's administrator Selfridge feels nothing, and sees nothing but "goddamn trees," at least in part because he lacks the capacity to feel

Pandora's reciprocating presence. In this respect he echoes other fictional characters that have only *ego-* but not *eco-*awareness.¹⁴ In C.S. Lewis' novel *Till We Have Faces*, a bitter Orual, despondent in what she perceives as her wholesale rejection by the gods, ultimately discovers that the divine powers stay hidden from us not out of aloofness, disdain, or non-existence, but because we ourselves lack the degree of reality required in order to make contact with them: "How can they meet us till we have faces?" (294). In *Avatar*, we likewise find that the more-than-human world only gazes back at us with reciprocation if we first open our own nerve endings to a vastly wider set of connections shared by it. *How can Pandora, how can the Earth meet us, till we have interfaces?*

Paradoxically, in *Avatar*, humans are able to access these vaster more-than-human connections and interface with nature only by using the powers of the virtual. *Avatar's* overt use of virtuality to reconnect us to the real—both on the narrative and meta-narrative levels—inverts the expectation that virtuality necessarily points us away from nature. If anything, the Na'vi's extended neural connection with Eywa provides a model for how we might make our own technologies extend our senses to include the more-than-human world rather than just our own productions. Nascent technologies like mixed or augmented reality have the capacity to extend our nerve endings, allowing us to receive crucial ecological feedback—opening up possibilities for using data overlays to gain a "sixth sense," and in this way experience the direct consequences of our consumption patterns, which usually go individually unperceived, causing enormous collective damage.¹⁵ Likewise, one might construe the viewer's use of 3D glasses as a metaphor for wearing a life-supporting mask—if not an avatar body outright—enabling her to traverse Pandora as a vicarious Earth. Just as a feeble Kuno had to sip mechanically purified air as he explored the Earth's surface in escaping from mechanically dominated reality in Forster's "The Machine Stops," we too might need to employ extreme self-created mediations in order to re-initiate contact with a nature unmanufactured by us.

As one of the grandest fictive and technological simulations yet undertaken, the "reality" of Pandora is, like that in *Respire*, a case study in cyber-pastoral. Such a hyperreal nature might pose a threat to *real* nature by becoming "the copy more real than the real that destroys the desire for the original" (Ryan 33). But instead of only fueling the desire for escape, might *Avatar* also serve as a "wake-up call" exposing viewers to just how alienated they are, and how bleak and disconnected from nature their actual lives have become, leading them to resist and find a way to make themselves "dwell" again on an all-too-real Earth? Such possibilities are borne out in a recent news story which suggests that the immersive spectacle of *Avatar* may in fact be "a little too real for some fans who say they have experienced depres-

sion and suicidal thoughts after seeing the film because they long to enjoy the beauty of the alien world Pandora" (Piazza). One participant on the *Avatar* online forum suggests that by giving us Pandora, *Avatar* can defamiliarize our own home world, making us "see" it again—and not exactly in a favorable light:

When I woke up this morning after watching *Avatar* for the first time yesterday, the world seemed . . . gray. It was like my whole life, everything I've done and worked for, lost its meaning [. . .] I live in a dying world. [. . .] One can say my depression was twofold: I was depressed because I really wanted to live in Pandora, which seemed like such a perfect place, but I was also depressed and disgusted with the sight of our world, what we have done to Earth. I so much wanted to escape reality. (quoted in Piazza)

Like the speaker in Yeats' poem who seeks pastoral escape from the "pavements gray," this viewer wants to flee to a cybernetic Lake Isle of Innisfree. But another contributor to the forum finds the hyperreal landscapes and creatures of *Avatar* empowering as metaphors for finding hope not in escape, but in living here at home:

Start living like Neytiri: in touch with nature, the environment, and not being greedy and wasteful. Pass on the burger, for something more healthy for you and less cruel to animals. [. . .] If you're on apathy setting you might as well sign your world away to destruction. [. . .] The only way you can fill the emptiness you feel after this movie, is to jump on the leonopteryx. ("Ways to Cope")

Another member's response sees *Avatar* as showing a way not to escape from reality, but as a way to escape to reality, to make our broken world into one more like Pandora: "The real world is out there—and somewhere we might be like the Na'vi!" ("Ways to Cope").

Fleeing the desert of the real for the mirage of the virtual is one obvious escape route that the spectacle of *Avatar* opens up to us. *Avatar* makes an ecologically sane virtuality feel more real—and vastly more desirable—than the actual world we find around us. But like Zampanò's *House of Leaves*, the potent fiction of *Avatar* refuses to stay safely contained "inside" the frame of its projection. The screen becomes a window that opens reality to vastly deeper vision, thereby creating a healing possibility for our own world, a possibility with more promise than just *our own* escape—namely, the escape of this fiction into the real. For these reasons, I don't think we

need to be dismayed at our enchantment with virtual nature in *Avatar*. As Picasso said, "art is a lie that makes you realize truth." By interfacing with the fictive cybercultural ecology of *Avatar*, we can feel ourselves enchanted by the brilliance of Pandora's self-generated bioluminescence. Through this widened vision might we also witness our own Earth blazing forth again, at once strange and familiar, in its own light?

And say to it, "I see you"?

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NOTES

¹ All subsequent references to Cameron are for *Avatar* unless otherwise noted.

² Thanks to Lance Olsen for emphasizing such points. Complicating such questions to the point of bewilderment, the official tie-in book *Avatar: A Confidential Report on the Biological and Social History of Pandora* (Wilhelm and Mathison) not only denounces consumerism and the extractive horrors wrought by the RDA, but actually provides marginal notes outlining acts of resistance to corporate empire in detailed "how to" format. Subtitled "An Activist Survival Guide," the book in this respect echoes *Ecodefense: A Field Guide to Monkeywrenching* (Foreman et al.), the infamous Earth First! guide to ecological sabotage performed "in defense of mother Earth."

³ "In engineering, fiction, or thought experiments, unobtainium [with an initial "i"] is a humorous concept for any extremely rare, costly, or physically impossible material needed to fulfill a given design for a given application." The element unobtainium (no initial "i") is re-spelled to fit the nomenclature of the periodic table ("Unobtainium").

⁴ Jake's abandonment of the torch interface feels particularly jarring when one considers that viewers of the film, on the contrary, can only really "see" Pandora by *putting on* an extra interface made of special lenses.

⁵ For more on the aesthetic of relinquishment in Lewis and Faulkner, see Alf Seegert, "Harsh to the Feet of Shadows": The Wild Landscape of the Real in C. S. Lewis' *The Great Divorce* and William Faulkner's *The Bear*" in the Portal Editions anthology *Doors in the Air: C. S. Lewis and the Imaginative World* (forthcoming).

⁶ In the shooting script, James Cameron reveals that these queues are also used for bonding Na'vi with Na'vi: in their mating, Jake's and Neytiri's queues mingle. This scene was filmed but cut from the theatrical release ("*Avatar Script*").

⁷ As the Na'vi understand it, the banshee (*Ikran*) selects its rider as much as its rider selects it; the two acting as partners in flight. But the employment of *Sa'helu* on the

banshees operates through extreme duress (reminiscent of a cowboy roping a resistant animal) and the rider “steers” his mount with his thoughts, implying that their fusion is in fact hierarchical and that the Na’vi rider is the one in control. Such a curious construction of “partnership” recalls the Victorian notion that husband and wife are one unit—and the man is that unit.

⁸ Peters draws from Kafka on this point: “Written kisses don’t reach their destination, rather they are drunk on the way by the ghosts. It is on this ample nourishment that they multiply so enormously. Humanity senses this and fights against it and in order to eliminate as far as possible the ghostly element between people and to create natural communication, the peace of souls, it has invented the railway, the motor car, the aeroplane. But it’s no longer any help, these are evidently inventions being made at the moment of crashing. The opposing side is so much calmer and stronger; after the postal service it has invented the telegraph, the telephone, the wireless. The spirits won’t starve, but we will perish” (Kafka, qtd. in Peters, *Speaking Into the Air* vii).

⁹ “The task today,” argues Peters, “is to renounce the dream of communication while retaining the goods it invokes. To say that communication in the sense of shared minds is impossible is not to say that we cannot cooperate splendidly” (Peters, *Speaking Into the Air* 21).

¹⁰ Such a condition, if I characterize it correctly, raises enormous concerns about the possible transfer of ideology by manipulating a viewer who gives over his critical faculties in order to become immersed in sensations. The so-called “aesthetic of relinquishment” might take on a darker visage here if one relinquishes critical distance in order to bask in what Gumbrecht calls “presence effects” (79). To re-invoke McLuhan, might the amplification of sensation in turn amputate critical reflection? In the same way that the Na’vi rider controls the banshee he rides, does Cameron’s film “ride us”?

¹¹ In *Understanding Media* and *The Medium Is the Massage*, McLuhan argues that technologies all extend the body—but at a cost. One of his slogans is “extensions alter perceptions,” and even as these extensions amplify, they amputate:

All media are extensions of some human faculty—psychic or physical. The wheel is an extension of the foot . . . the book is an extension of the eye . . . clothing an extension of the skin . . . electric circuitry, an extension of the central nervous system. Media, by altering the environment, evoke in us unique ratios of sense perceptions. The extension of any one sense alters the way we think and act—the way we perceive the world. When these ratios change, men change. (McLuhan and Fiore 26)

Following McLuhan’s model, using a hammer extends the hand’s reach (and its impact) but deadens tactile sensation—the hammering hand cannot feel what it hits. Use of the alphabet extends the possibilities for recording and transmitting information but makes human memory forget what it formerly would have stored (as Socrates

lamented in the *Phaedrus*). Using a foot for locomotion brings forth a radically different world of interactions depending on whether it is used to walk or to press a car’s accelerator pedal. Deploying the foot to hit the gas might lead both to enchantment—a delight in the aesthetics of whirr and blur—and to alienation, from the loss of other modes of sensory contact such as touch and smell that one encounters when walking (the sort of connection Gerard Manley Hopkins lamented losing in his 1877 poem “God’s Grandeur,” in which “the soil/Is bare now, nor can foot feel, being shod”). Ultimately, the very perception of what counts as “self” or “body” in the first place is altered by the technological interface one uses.

¹² In the chapter “The Gadget Lover” from *Understanding Media*, McLuhan argues that the Narcissus myth is misread when construed as that of a boy falling in love with himself. In the story, Narcissus doesn’t realize that the reflection he so adores is really an image of *himself* at all. In just this way, McLuhan continues, technological extensions create the illusion of otherness when they really only provide a hall of mirrors for infinitely reflecting humanity back to itself. Narcissus produces narcosis, or numbness, by dulling sensations that would otherwise reveal that we’re really only in contact with—and only seem to desire—our own productions and our own reflections, not contact with genuine “others.” For McLuhan, this condition of dissociated, hypermediated narcissism is so numbing that it effectively truncates our nerve endings of all input other than that provided by the media interface itself. (If you doubt this, try holding a conversation with someone listening to her or his iPod.) As McLuhan puts it, Narcissus was insensate to the cries of the nymph Echo because “He was numb. He had adapted to his extension of himself and had become a closed system” (63). In the same way, our condition of technologically induced *narcosis* prevents us from responding to the call of the more-than-human world. The consequence of such narcissism is particularly susceptible to a Heideggerian critique because the world we bring forth through technology constrains Being, in all its possible ways of unfolding, to one monolithic style of virtual image, namely, a technological “world picture” created by human beings, exclusively for human beings. Understood in this way, we confuse Being with a reflection, and like Narcissus, fall in love with the image, not realizing that we put it there ourselves. As Kevin DeLuca tweets, “The orientations of cell phones/new media truncate our reciprocal relation with the Earth, stunting our senses and incarcerating ourselves in a technosoliloquy” (DeLuca, “Blackberries”).

¹³ When Selfridge instructs the driver of an enormous tractor to keep plowing into a grove of trees sacred to the Na’vi, neither he nor the driver is present inside the vehicle doing the plowing—both functioning as technologically ramped-up versions of Steinbeck’s goggled and muzzled tractor driver. They operate the device at a safe distance via teleoperation—as if playing a video game—and feel their own impacts that much less profoundly as a consequence. For a detailed account of how similar technologies are already at work in the U.S. military and CIA through remotely operated (and armed) drones, see P.W. Singer’s *Wired for War*.

¹⁴ Note the “Self” in the name Selfridge.

¹⁵ See “Pattie Maes and Pranav Mistry Demo SixthSense” for an example of one of the most promising augmented reality interfaces to date.

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