Forest Tales: Toward a Practice of Eco-Cinema

Anuj Vaidya

Prologue: The Cinematic Forest

Imagine this: I sit, in the noon time sun, in an outdoor classroom in the Sagehen Experimental Forest.[1] The sun is streaming across the meadow, bouquets of wildflowers pepper the landscape, the edge of the grass is bordered by stands of white fir and pine. Suddenly, the wind picks up and plumes of yellow pollen blow across my field of vision. The gurgling of the nearby stream and the sound of the wind rushing through the trees is the soundtrack to this cinematic experience, with the occasional chirping of juncos, squealing of squirrels, and the beeps and clicks of my computer. I am in Scott MacDonald's "garden in the machine," distanced from the machinic grind and routine of modern life.

For MacDonald, this garden is eco-cinema—the practice in avant-garde filmmaking that "uses technology to create the illusion of preserving "Nature," or more precisely, that provides an evocation of the experience of being immersed in the natural world" (2004, 108). Eco-cinema facilitates a retraining of perception, a slowing down of time and the body, reorienting viewers toward a different mode of cinematic consumption. As MacDonald acknowledges, while current cinematic practices seek to intervene in the routine experience of everyday time, opening up space/time for escape, they simultaneously accelerate consumption. They speed up the disappearance of the very world that eco-cinema seeks to hold on to, the world that it circulates in. For MacDonald, then, cinema—a fragile medium that deteriorates and disappears—becomes a reflexive/reflective surface upon which to project the eventual disappearance of the world itself. "If we cannot halt the decay and transformation of the world or of cinema," he says, then at least through the medium of film, "we can hold on to it longer than may seem possible" (108).[2] But these pine trees that face me offer a different mode of engaging the cinematic. For if the cinematic is "of the cinema," then these trees are inextricably entangled in the histories of the moving image and their circulation: it was wood pulp that the Swiss brothers Camille and Henri Dreyfus put through the process of acid treatments and hydrolysis in order to create cellulose acetate, the material substrate that makes all celluloid possible. In my cinematic experience of the forest, however, celluloid is turned back into cellulose, revealing the im/possibility of turning film back into the material life it originated from. This is the cinematic as a process of reversal that frees the captured image, what Nadia Bozak (2011) calls "fossilized light," back into uncaptured light, releasing the spectacle of cinema back into the landscape. This is the goal of my practice, then: against all odds, to return the forest to the forest.

Anuj Vaidya is an artist, educator, and media curator whose practice inhabits the cusp of cinema and performance. Invested in process, and with a keen sense of the material ecologies of his practice, Vaidya seeks to engage a politics of retreat, where retreat is reflection, self-care, and reorientation toward an eco-practice. His collaborative project, *LRS (Larval Rock Stars)*, with artist/scholar Dr. Praba Pilar, provides the engine for his larval method. LRS rejects the category of the "human" and posits, instead, the "larval" as an emergent space which holds the potential for forms that are in the process of actualizing. Vaidya was co-director of the South Asian Film Festival in San Francisco from 2008 to 2019.

Forest Tales: An Introduction

Many forests inhabit this essay: historical and contemporary, imagined and situated, metaphorical and material, literary and performed. Together, they make *Forest Tales,* a queer, sci-fi, eco-feminist re-telling of the epic *Ramayana* as a *Sityana.*[3] The *Ramayana* tradition has spawned numerous counternarratives over space/time that challenge the normative inclinations of the tale (Richman). A. K. Ramanujan calls this the "pattern of difference." According to him, "every author . . . dips into it and brings out a unique crystallization, a new text with a unique texture and a fresh context." This is the ecology of the Ramayana tradition—what Paula Richman calls the "questioning Ramayanas"—which has sustained the diversity of this storytelling practice over centuries. In my crystallization, Sita—daughter of the earth—emerges not as human, but as forest, revealing the latent ecological potential of the epic. It is this metamorphosal quality that I hope to borrow for cinema itself, in this essay and in my practice.[4]

Forest Tales, originally imagined as a film, intended to extend the ethos of ecology into artistic practice by using human-powered energy solutions to produce the film. However, since the most environmentally friendly film is one that never gets made, the project now exists as an embodied performance of the film. Speaking with Sita is, therefore, not only a narrative strategy but also a critical method in my "restorying."[5] It offers the opportunity of speaking with the land and centres the agency of the forest and all its entangled relationships. It acknowledges the inseparability of material and metaphor, urging me to rethink eco-cinema as method, in addition to being a lively discourse on nature in/and cinema.

In the last few decades, Rama's narrative has become a powerful political tool in the hands of a growing Hindu supremacist movement in India, seriously undermining the democratizing thrust of the epic tradition. It has also been used to justify and intensify resource extraction from forested lands, pitting the neoliberal nation-state against the lives and livelihoods of Indigenous peoples (Guha). The moving image has played a significant role in this consolidation of Hindu power through a state-sponsored version of the epic, Ramanand Sagar's *Ramayan*, which was televised across the nation in the mid-1980s, reaching over eighty million viewers. Public intellectuals such as historian Romila Thapar (2014) were especially concerned about the fact that the phenomenal reach of the series was promoting a singular vision of the epic as the original and correct version of the story.

While the deployment of cinematic images as political propaganda has a long and gnarly history, Nadia Bozak argues that the cinematic apparatus has always already performed this function from its very inception, as a tool and catalyst of the "hydrocarbon imagination." She says, "indeed, cinema is intricately woven into industrial culture and the energy economy that sustains it" (Bozak 2011, 1). According to the Albert Report commissioned by the British Academy of Film and Television Arts, every hour of on-screen media production is responsible for an average of 5.8 tonnes of CO_2 emissions, which is equivalent to one person flying around the equator in an airplane (BAFTA 2012). And while Hollywood is one of the leading sources of air pollution in Los Angeles, second only to the oil refining industry, it is the inordinate amount of energy that filmmaking consumes that is its "most glaring indulgence—if not abuse," according to Bozak (2011, 5). What cinema offers us then, in terms of its visual logics, is a "resource image" that makes "visible the subordination of nature as the root of industrial culture" (54). Bozak goes as far as to say that cinema even demands this relationship, spectacularizing and normalizing extraction and consumption.

As a filmmaker and artist not bound by the terms of the industry or the market, the fuel and energy needs of my production became one of the first sites of interest and intervention for my project. Toward this end, I started a project in 2013, in collaboration with Ashwin Vaidya, a physics and math professor at Montclair State University. Over the course of a semester, we worked with his students to research and build hand-crank and bicycle power mechanisms so that I could get a sense of what it would take to power an independent film production off the grid. Ultimately these experiments led me to recognize that while I could produce a film off the grid with much human labour, and a frugal aesthetic,[6] the question of distribution remained, for—as Bozak reminds us via Walter Benjamin—embedded in every image is the industry itself, and this includes the technologies by which the images are made, and also the technologies by which the images are circulated and consumed. So while I grapple with the implications and imaginaries of a decentralized exhibition system for my film, *Forest Tales* circulates as a performance. It is not cinema, but rather the "cinematic" that becomes the unit of inquiry here, moving me toward what Bozak calls a "resource-conscious image"—one that is "self-conscious of its cinematic relationship with the biophysical world" (2011, 190). Thinking cinematically means thinking with the apparatus (camera, projector, etc.) and the practices (story-boarding, editing, etc.) that cinema engenders, in order to make visible that which is rendered irrelevant by the logic of the "resource image." The goal is not to fix these sites of origin, or their trajectories; rather, it is to be attentive to how they emerge or unfold, what contours they follow, and what ontoepistemologies (Hunter 2015, 5) they enact—in short, to acknowledge cinema as a material and embodied process.

As film scholar Vivian Sobchack reminds us, given the radically material nature of human existence, the screen image is "where the aesthetic and the ethical merge and emerge in the flesh" (2004, 1). Our bodily ability to sense the world is what Sobchack calls "sense-ability," or sensibility—in other words, aesthetics. The range of our sense-ability, in turn, defines our "response-ability," or responsibility—in other words, ethics. In the rush to seize the pleasures of cinema and technology, Sobchack wonders if we have forgotten the "energies and obligations that animate our 'sensibility' and our 'responsibility'" (3). Rather than the body, it is embodiment that emerges as the frame of reference in her analysis. For it is in the carnal experience that sensory consciousness and fleshy materiality meet as an "irreducible ensemble," revealing "the intimate and materially consequential bonds we have (whether we deny or embrace them) with all others and all things" (3). *Forest Tales* takes Sobchack's concerns seriously and urges us to pay due attention to the material entanglements of our cinematic practices, in terms of both embodiment and environmental impact.

Forest Tales: An Eco-Cinema in Two Acts

The forests that you will encounter in the following scenes are part of a performance, *Forest Tales: An Eco-cinema in Two Acts*, that took place at the Asian Art Museum in San Francisco in December 2016. The performance, presented in two acts, simultaneously introduced audiences to different aspects of cinematic production through a participatory process, while also familiarizing them with the narrative thrust of my retelling.[7]

Story-boarding was the cinematic hook that allowed audiences a glimpse into the cinematic process in act 1. Working with illustrator Fei Rost over two to three months, I had developed a series of six to eight story-board frames to focus on during the performance. The production of

these images formed the backbone of the first act. Act 2, on the other hand, was set up like a film shoot followed by a "viewing" session, which in this case was a visualization. The following script for a documentary about the performance will introduce you to the structure of the piece and help you envision the embodied cinema that this intervention is attempting to perform.

All sound in the performance was powered by a bank of three bicycles, bringing into relief my concerns about what it takes to energize cinema. Volunteers were recruited from the audience each time the bicycle bank needed to be activated to produce power for the sound system. This process brought attention to the labour of embodiment as a prerequisite for the labour of cinematic production and spectatorship.

Forest Tales: Becoming-Sound. Photo: Anuj Vaidya.

Sobchack argues that we have an impoverished understanding of the visual as only that which is visible, whereas vision is an embodied experience that is felt as much as seen, helping us "make meaning in ways that inform and include but also far exceed the particular sense and image-making capacities of vision" (2004, 187). Following Sobchack's expansive definition of the visual, I invite you to envision the scenes described below with all your senses, as you read the script for a documentary about the performance.

The Script: *Forest Tales*

Forest Tales: Story-boarding. Photo: Anuj Vaidya.

TITLE SCREEN: Act 1, Story-boarding

CUT TO: The documentary begins with shots of Fei Rost drawing story-board plates as I describe the narrative of my film to him.

In my retelling, the sitas begin their journey as a million microbes in outer space, arriving on earth to seed and sprout a sentient forest—Ganga Satellite. When Rama, scion of the Om Corporation, encounters the forest, he falls in love and requests the sitas to take human form (as Sita). Curious about human ways, Sita returns with Rama to the centre of the Om Corporation, and there, transfixed by the drone of progress, she forgets that she is a forest, that she is a goddess.

Forest Tales: Sita emerges into the world as human. Illustration: Fei Rost.

As Fei sits on stage and works on story-board plates from the narrative, a close-up of his canvas is projected on a screen so audience members can see the frames come to life. As the performance unfolds, audience members are invited to unspool VHS tapes (of the nationalist 1980s television version of the *Ramayana*) and roll them into balls of videotape yarn—seeds for a future experiment.

FADE TO BLACK

TITLE SCREEN: ACT 2, Becoming-Plant Rehearsal

FADE IN: The camera slowly zooms in on Margaret Kemp who performed the role of Sita. She is standing with her eyes closed. You hear me welcome the audience to the "behind-the-scenes" of this film shoot. They are invited to witness a rehearsal, where Margaret "becomes-plant" in a toxic forest. As the scene continues, Margaret's body becomes more and more rigid until she contorts and falls to the floor.

Forest Tales: Becoming-Plant, Margaret Kemp. Photo: Anuj Vaidya.

Presented as a meditation, this adaptation of Natasha Myers' *Kriya for Your Inner Plant*[8] (2014) considers the impact of e-waste on plant bodies. This rehearsal offers a frame to orient audiences to the scene that will be shot as part of the performance. This is INTERCUT with shots of the set. Behind the rehearsal area the stage is set as follows: there is a large red fabric that covers the floor; this is the toxic forest, which has turned into a site for farming digital materials. To the left, there is a mound of plants and wires that rises from the forest floor; to the right is a digital farm—batteries, circuits, and electronics growing out of the forest floor.

CROSSFADE
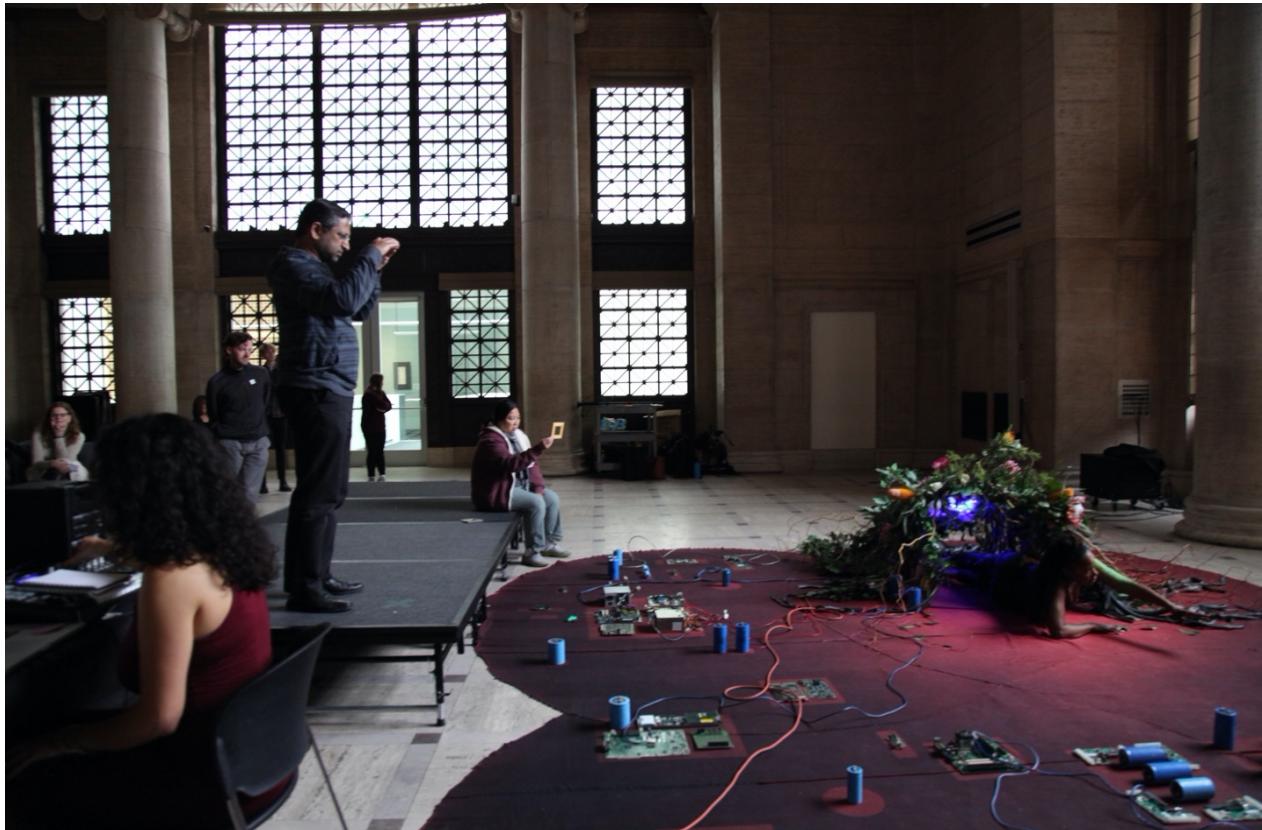
Forest Tales: Becoming-Camera #1 and #2. Photo: Anuj Vaidya.

TITLE-SCREEN: Act 2, Becoming-Camera

DISSOLVE INTO: A series of shots, each one capturing a different audience member looking intently through a viewfinder in their hands. Audiences are invited to take one of four camera positions to capture the shot: camera #1 is positioned stage right and is a close-up shot on Sita; camera #2 is centred, and is a high-angle shot also framed on Sita; camera #3 is stage left, and is a low-angle shot that captures Sita through the digital farm; and camera #4 is a pan shot that moves across the digital farm, coming to rest on Sita.

Forest Tales: Becoming-Camera #3. Photo: Anuj Vaidya.

The audience members have been charged with becoming-camera[9] and "capturing" the shot in their minds; this shot will become fodder for an "imagined cinema" later in the performance.

Forest Tales: A view from camera #3. Photo: Anuj Vaidya.

The shot is repeated six times so that all audience members get a chance to become-camera. For each take, I announce "Scene 1, Take x," and then call for "Lights"—at which point the electric lights are switched off, and the blinds rolled up to let natural light into the space. I say "Roll Camera," which is the cue for audience members to perform (in other words, to become camera), then "Roll Sound," at which point the sound designer/musician Ruby Mountain plays a track of frogs singing. Since the sound is powered entirely by bicycles, it takes a minute of pedalling each time before the sound cue comes on. Then I say "Action," at which point the camera #4 pans across the digital farm, across the floor of the bleeding forest, and finally comes to rest on Sita. The other three cameras remain static.

CROSSFADE

TITLE-SCREEN: Act 2, Imagined Cinema

DISSOLVE INTO: Close-up of audience members' faces, each one blindfolded with a blue piece of cloth.

Forest Tales: Imagined Cinema. Photo: Anuj Vaidya.

This is INTERCUT with Ruby Mountain live mixing a soundscape to accompany a visualization of a scene from *Forest Tales*. In this scene, a recurring dream of a golden frog has brought Sita back to the forest, and she arrives at a clearing where digital plants are being farmed. The toxic air causes her to faint, and when she awakens, she has been transformed into a cyborg-plant-human hybrid. At this moment, a monstrous golden frog appears above her and reminds her that she is a goddess. As the

frog begins to sing a mournful song, all of Sita's forest kin who have gone extinct since she became human come back and visit her, so she can grieve their passing.

CUT TO: Ruby singing *The Song of the Golden Frog.*

CROSSFADE

TITLE-SCREEN: Act 2, Screening the Rushes

DISSOLVE INTO: Audience members are taking off their blindfolds. The range of responses to the visualization is quite impressive—while some of the audience members have only seen colours in response to my leading visual track, others have imagined the scene as a comic strip, while yet others have imagined a three-dimensional enactment of the scene (as opposed to an image on a screen); only some people have a hard time imagining anything at all—focusing instead on the soundtrack. In a few instances, one person's descriptive imagery triggers another person's archive, so that they share a whole new set of images from their memory—images that they had not actually seen during the visualization, but that had been precipitated as a result of the conversation. Images from popular science fiction movies surface, both as part of the visualization and also as a result of the conversation: these are the mass media archives that we share. While many of the audience members are faithful to my instructions and restrict their visual imagery to the prompts they were primed with by the film shoot, others explicitly refuse to follow my instructions and instead opt to create their very own visual tracks, following their own aesthetic inclinations driven by their personal archives. In the end, each person's imagined cinema is unique, even though they all emerge from the same visualization/narrative.

FADE TO BLACK

Adrian Ivakhiv argues that the cinematic apparatus is a worlding machine, created through the interaction between its geomorphic lens (representations of space), its biomorphic lens (representations of life), and its anthropomorphic lens (representations of the human). "Together, these three 'morphisms' produce a world which is material at one end, social at another, and interperceptual in the middle," he writes (Ivakhiv 2011, 127). It is through the meaning-making mediation of human perception—both intellectual and affective—that the moving image acquires weight. It not only captures movement on screen, but simultaneously moves us emotionally and affectively, and it is in the feedback loop between the narrative and affective elements of the image, and between the cinematic world and the real world, that our imagination is sparked.

Based on feedback after the performance, it became clear that what was most effective about the performative mode of the cinematic described above was that it allowed audience members ownership over the act of image-creation. In this moment, the separation between the projected image and the perceived image was collapsed, putting into relief the corporeal foundation of cinematic practice which must work on and through the human body. The performative mode foregrounded the constructed nature of the moving image, while at the same time allowing audience members to "feel" the images. While the act of becoming-camera foregrounded the material ecology of cinema, it also simultaneously slowed down the perceptual mechanism, priming it for the imagined cinema to follow. Alternately, the act of blindfolding audiences served to heighten the felt experience of the image and narrative. The performance, ultimately, encouraged audience members to experience the inextricable relationship between the perceptual, social, and environmental

registers of filmmaking, allowing for a rich discussion about the ecologies of the moving image in the post-performance discussion. Ultimately, in the process of reflecting on the visualization, a different kind of cinema was invoked—a situated cinema that relied on the technology of the body to conjure up its hopes and dreams, and not one beholden to market-driven technologies and their self-sustaining ideologies.

Eco-Cinema as Deep Ecology

While my practice has always straddled the cusp of performance and cinema, it was only with *Forest Tales* that my practice began to engage with the material impact of the cinematic process, and that performance became an intervention into the cinematic process itself, rather than its representation. For instance, both my videos *Chingari Chumma* (2000, in collaboration with Tejal Shah) and *Bad Girl with a Heart of Gold* (2004), use performance as a strategy to stage an intervention in the representational politics of Bollywood films. In the former, Tejal and I restage a formulaic climax sequence from a 1970s Bollywood film and turn it into a queer S&M fantasy. In the latter, I re-enact four different roles essayed by the iconic star Helen, in order to enter her narrative universe and rescue her from "death by Bollywood." In both these cases, the "ecologizing" of the image was a function of limited economy, but also because the films were referencing existing cinematic narratives, a significant percentage of the visual imagery was accounted for and did not have to be produced.

Such DIY practices that consume and produce negligible energy and waste compared to the mainstream industry are typical of second cinema (or European art cinema), third cinema (or post-colonial/third world cinema), queer cinema, video and installation art, according to Bozak. But it is only in "fourth" cinema (or Indigenous cinema) that Bozak recognizes an embodied practice of eco-cinema, where material practices and representational concerns dovetail, and "video imaging technologies (now digital video) and Internet distribution forward environmental concerns . . . often in tandem with the preservation of Indigenous culture" (2011, 3). Ultimately, the eco-cinema that she invokes is a "fifth cinema"—a carbon-neutral cinema of the future—that proactively engenders an environmentally sustainable cinematic practice. It scales back, and performs, a fundamental shift in how we arrive at the intersections of digital culture and energy solutions—through "a digital consciousness and an energy revolution (as opposed to the skewed variants we have now, a digital revolution and an energy consciousness)" (11).

Bozak is, however, suspicious of the digital as a green alternative to celluloid as it opens up a whole new set of problems that have to do with how rapidly digital formats evolve, rendering older formats inaccessible (2011, 188). In material terms, the digital and the cloud are merely iterations of carbon-based media, with the digital building upon the plastic materiality of the celluloid and the cloud resting upon the materiality of a digital infrastructure, which in turn rests upon older telecommunications networks, which are themselves layered onto the transcontinental railway system (Hu 2015, 5)—all of which rely on electricity and a petroleum-based economy. While the celluloid acknowledges its materiality as a petroleum-based medium, the digital masks its materiality as a silicon-based medium by displacing the focus onto the structure of its information (as in the binary code), and the cloud pretends to be immaterial. As of 2014, IT-related services accounted for 2 percent of our carbon emissions (Walsh), equivalent to air travel, and with the rate at which we are consuming digital media, this does not seem to be a trend that will reverse anytime soon (Roettgers 2018). This is especially true given that we can access the cloud from the palms of our hands, at the

snap of our fingers—this is an intimate relationship. But a deeper intimacy lies in the materiality of cinema—celluloid or digital—which not only holds our representations but is slowly insinuating itself into our very material bodies in the form of micro-plastics (Harvey and Watts 2018), corporeally entangling us with the cinematic.

This is not to say that evolving media technologies have not had a positive social impact, providing access to marginalized voices and communities. Bozak notes (via Timothy Corrigan) "that video formats have since the 1960s enabled filmmakers to render history immediate and public, refusing the rigid temporality and textures of dominant narrative systems" (2011, 51). For instance, as film scholar B. Ruby Rich (2013) notes, the New Queer Cinema movement was made possible largely due to a revolution in camcorder technology that made it economically viable for independent productions. Similarly, the 3rd i SF International South Asian Film Festival,[10] where I have been programming since 2006, came into existence in a post-9/11 media landscape that equated "brown bodies" with fear and terrorism and was premised upon undoing stereotypes about South Asians in the mainstream media by using the same media technologies to tell our own stories.[11] But this visibility has come at the cost of a growing problem of e-waste,[12] what Bozak (via Jennifer Gabrys) calls the "residual ecology of the moving image." At the crux of the matter "is the counterintuitive premise that objects are made according to the enduring principle of planned obsolescence but are at the same time composed of materials (plastics, glass, compressed metals) engineered to endure" (Bozak 2011, 158).

The mainstream film industry, however, is not necessarily concerned with patterns and technologies of consumption. The conversations around eco-cinema in this context revolve instead around green production practices for the film and television industry. The British Film Institute and the British Academy of Film and Television Arts have spearheaded the Albert Consortium and the Greening the Screen initiatives,[13] respectively, to move the entire television and film industry toward best practices in relation to environmentally sustainable filmmaking. In 2017, the Producer's Guild of America, in partnership with the Environmental Media Alliance, finally released a Green Production Guide to reduce carbon emissions. They offer two tools: the Production Environmental Actions Checklist (PEACH), which certifies films with the "EMA Green Seal," and the Production Environmental Accounting Report (PEAR), which is a carbon footprint calculator for films.[14] In addition, they provide directories of eco-vendors offering a range of sustainable products and services from costuming to catering. In addition to these tools, carbon offsetting remains a popular method for productions to espouse sustainable practices in the process of acquiring a "carbon neutral" certification. But "eco" in this context is a function of the emergent carbon economy, and an attempt at "greenwashing." Amanda Scarano Carter, West Coast Chair of the PGA's Green Initiative, makes this clear when she talks about the "double bottom-line," putting economic priorities on the same level as social priorities. "A film should strive to do well financially, but also do right by society in general," she says (Warren 2019).[15]

This is a perfect example of what Arne Naess calls "shallow ecology," which he defines as the "fight against pollution and resource depletion" (1973, 95). Gregory Bateson argues that ecology cannot simply be understood as the environment; rather, we must recognize that there is no separation of the organism from the environment. Ecology then describes, as Naess elaborates, a set of relations that determine the conditions of life in a given environment. Naess argues that science and technology, while useful tools to study ecology, cannot ultimately be the arbiters of the quality and diversity of life, for they are themselves beholden to economic imperatives in modern societies.

These imperatives value growth and market expansion, conflating wants with needs (Naess, 104). Instead of ecology, then, Naess argues for an ecosophy—a philosophy of ecology—as that which should guide our actions. In his view, philosophy prioritizes cultures and relations and demands that we pay attention to the consequences of our actions. In the great philosophies of the past, he argues, "the importance of technology is recognized, but cultural values get priority of consideration" (Naess 1989, 87). Naess calls for a "deep ecology" instead, one that acknowledges the intrinsic value of all forms of life and non-life in and of themselves. Anishinaabe/Haudenosaunee scholar Vanessa Watts takes this even further, not only assigning value but also agency to the non-human. This is what she calls place-thought, the ability of the land to think and speak, not metaphorically, but in material terms. Whether we can listen and respond ultimately depends on our own "sense-ability" and "response-ability," to borrow Sobchack's terms. "Thus, habitats and ecosystems are better understood as societies from an Indigenous point of view," she says (Watts 2013, 23). Ecology in this understanding becomes synonymous with community, bringing human and non-human actors on a level playing field, and requiring an ethics of reciprocal care for survival. Ultimately, Watts homes in on the concept of sovereignty as that which separates Western and Indigenous relations to the land: in the West, sovereignty is understood as freedom, but in Indigenous conceptions, there is no freedom without responsibility.

It is this reciprocity that *Forest Tales* seeks to enact, centring the agency of the forest and making visible the enormous cost of cinematic practice—not only in terms of footprint, but also in terms of its "brain-print" (Townsend 2011). As Naess elaborates, the first step in the transformation of shallow ecology to deep ecology is in the transformation of our consciousness, so that we become aware of the consequences of our actions. French philosopher and psychoanalyst Félix Guattari calls this consciousness our "mental ecology"—an ecology of ideas—which he sees as becoming increasingly homogenized through "mass media and telematic standardization" (Naess 1989, 35). Ultimately, Guattari calls for a move toward a "dissensus," an active undoing of this singular way of thinking by expanding the notion of ecology transversally across the registers of the individual, the social, and the environmental. It is process, rather than product, that needs to be centred here, and Watts's concept of community rather than the market, so that we are not taken in by the shallow lustre of the image, but look deeper into the material entanglements of our practices to see who benefits from them, and at whose expense.

Epilogue: Larval Cinema

In his elaboration of deep ecology, Naess stresses the importance of action as a central feature of ecosophical practice. While the ends of this action are clear—a radical transformation of our social values guided by a philosophy of ecology, as opposed to a science of ecology—he leaves open many pathways for us to get there. Naess calls his own practice Ecosophy T, where T represents his mountain hut Tvergastein. This is a place with which he has an intimate relationship, and that has been an active collaborator in his thinking. He encourages others to find their own sites of place-thought, and pathways of reasoning, to arrive at the conclusions he has reached so that they are particular to an individual's own experience.

Following Naess's call to action, then, the eco-cinema that my practice seeks to manifest is a larval[16] cinema, a shape-shifting cinema invested in a complete transformation of itself, so that it is unrecognizable to its current hydro-carbon and digital incarnations. For when larval forms metamorphose, their material transformations are radical, their new bodies bearing merely the most

essential traces of previous forms. My experiments similarly engage with the most basic elements of the cinematic—kinesis, image and sound, and the spectator—reinterpreting and rearranging them in various permutations and combinations to arrive at cinematic incarnations that reveal cinema's entanglements with corporeality and energy consumption. For Thomas Elsaesser (2014), it is not just the unique mode of capturing kinesis/kinesthetics for representation that defines cinema, for the pre-cinematic (in the figure of Edward Muybridge) is already attending to motion in images. Rather, it is the relationship or arrangement between the image, the medium, and the spectator—what Elsaesser calls the "cinematic dispositive"—that populates the category of the cinematic. In this conception, the cinematic extends in time both ways—forward into a speculative cinema of the future, and into the past, as a prefiguration of the cinematic apparatus as we know it.[17]

A larval cinema, therefore, enacts a politics of retreat, and I use "retreat" here in its multiple valences. As a noun, a retreat is a place of refuge and reflection, a place from where to start again with renewed insight. As a verb, to retreat is to refuse engagement with the extractive "ecologics" (Ivakhiv 2008, 24) of cinema; it is as much as a strategic withdrawal as it is a reorientation: not a retreat *from* cinema, rather a retreat *to* the cinematic. The cinematic is a field of vision that expands cinema's purview beyond the image to include the apparatus through which these images are made, circulated, consumed, and eventually disposed of. It makes visible the embodied entanglements of cinema, which works through and on the body. Rather than viewing cinema as simply a cultural phenomenon, a larval cinema demands that we not separate nature and culture, but rather recognize cinema as a natural-cultural phenomenon that emerges from and merges back into the biophysical world. This is what Adrian Ivakhiv (2011) calls a process-relational account of cinema, where one must track the cinematic along its material, social, and perceptual ecologies, all together (mirroring Guattari's three ecologies). The separation of these ecologies is an underlying assumption of the project of modernity, which sets the human apart from nature, framing ecology as management of the "other" rather than as "self" in a relativist state of being. Instead, a larval cinema espouses a relational state of becoming, a de-scriptive ecology as opposed to a prescriptive ecology, one that asks us to pay due attention to emergent relations, as opposed to the management of difference. The management of difference is achieved through homogenization invested in consolidating power, rather than consolidating the kind of community set out by Watts above. While the digital mirrors the *Ramayana* in its democratizing thrust, facilitating equitable access to the modes of production, it remains far from delivering on this promise, as is evident in the still relevant "digital-divide" (Hobson 2012; Nelson 2002) and the continuing lack of diversity on screen and behind the lens in the motion picture industry.[18] *Forest Tales* stages an intervention into such totalizing narratives of the *Ramayana* and of cinema, both of which are invested in consolidating power by promoting totalizing narratives—of Hindu supremacy in the former case, and of the market in the latter case.

Sara Ahmed suggests that the world acquires shape through the force of repetition. This is, first and foremost, a matter of orientation, for this is the starting point from which the world unfolds for people, creating proximities. We tend toward what is proximate, in distance and significance, which in turn shapes our bodies by creating tendencies and dispositions, forcing us into certain alignments. It is just not just a matter of what worlds emerge when objects come into view, but also what opportunities are missed when objects recede into the background. In terms of cinema, Adrian Ivakhiv proposes that it is the cinematic gaze that does this work, shaping "our seeing and sensing of the worlds it produces and, in turn, the world we live in" (2013, 9). For as he elaborates, cinema creates virtual worlds that interpenetrate with our own. "If films produce worlds," he writes, "this productivity is rooted to some degree in a reproduction of the existing pre-cinematic or 'profilmic' world" (8), a world that "has become altered, othered from within, by

cinema" (25), and reduced to a catalogue of potential images. Following Ivakhiv, one might say that the cinematic framing increasingly precedes our view of the world now. The camera's mode of seeing the world is so pervasive that it has been sedimented into our perceptual ecologies since the advent of photography, and has only been intensified through the digital. In other words, the cinematic gaze is the acculturation of the eye to the view of the camera, such that it literally prefigures the world. If Vertov's kino-eye "[strives] to make the camera an instrument of pure vision" (8), then Ivakhiv reminds us that it is the filmmaker's eye that frames the "profilmic" world for the camera in the first place, becoming-camera and capturing the world as image through the naked eye before extending this frame to/through the camera itself. But it is also this very merging of the camera and the eye that might allow us to let go of the camera altogether, and reorient toward the material world around us, which is always already cinematic now.

This reorientation, which is also significantly a realignment, requires us to consider cinema's conditions of emergence, so that we may attend to its spectral histories and entanglements. The technology of cinema was decidedly a capitalist world-making project from its inception, where civic participation was imagined as the purchase of a ticket; now, it is also the purchase of a digital device. While "carbon neutral" is a fantasy that cannot realistically be achieved, for the very act of living itself is carbon-dependent, a larval cinema aspires to tread softly upon the earth. It aspires to be immaterial—a matter for the imagination so that the material world can continue to inspire our visions. Ultimately, *Forest Tales* centres the technology of the body in its practice of eco-cinema, asking participants to reorient themselves away from the screen, to face each other. It reorients itself away from singularities toward a multiplicity of voices and practices—in short, a forestation.

Forest Tales Production: Cast and Collaborators

Margaret Kemp is a film and stage actress, performance artist, who is currently an associate professor of theatre and dance at University of California, Davis. More information about her work can be seen at http://www.mlkemp.space/.

Fei Rost is a freelance illustrator who was studying fine arts and biology at the University of San Francisco when he participated in this performance. For more information about his work, please visit http://fehinfei.com.

The costumes and sets for the performance were designed by **Dana Kawano** and **Yoshinori Asai**, with assistance from **Julie Fong**.

Ruby Mountain aka Krystle Ahmadyar is an Oakland–based vocalist and songwriter who calls upon her training in jazz, experimental electronic and Afghan music to create compositions of love, resiliency and social justice. Her work can be heard at https://soundcloud.com/rubymountain.

The bicycle-power setup was from *Rock the Bike*, an Oakland-based nonprofit whose mission is to use pedal power as a way to start a conversation and a change in consciousness around climate change. More information about their events and products can be found at https://rockthebike.com/.

Notes

1. The Sagehen Creek Field Station is supervised by the University of California, Berkeley and hosts experiments by scientists and artists from across the UC system. http://forest.ucnrs.org.

2. While I invoke MacDonald's view of eco-cinema here, I acknowledge that it is only one of many modes of engagement with cinema ecology. As Adrian Ivakhiv catalogues in his *Green Film Criticism and its Futures* (2008), the field has blossomed since MacDonald's initial use of that term in relation to experimental cinema, to include critical analysis of wildlife and nature documentaries, and representations of the environment, the non-human, and dystopic climate futures in mainstream cinema. More recently, there has also been a critical focus on the material ecologies of media production, as in the works of Sean Cubitt and Nadia Bozak. Ivakhiv (2011) seeks to extend this by examining cinema as an anthrobiogeomorphic machine—one that has repercussions along vectors of production, representation, and perception. It is these latter variants of eco-cinema that I engage with more deeply in this paper.

3. The *Ramayana* is a living, breathing tradition in India and across large parts of Asia, shaping conversations around *dharma* (or ethics) in personal, social, and political matters to this day.

4. I engage queerness in my project along the axes of both image (or representation) and image-making as a strategy to decentre normative readings of both Sita and cinema. For a more detailed engagement with the queer underpinnings of this project, please refer to *Forest Tales: Restorying the Ramayana* (QED, 2019).

5. Qwo-Li Driskill (2016) engages restorying as a tactic toward restoring the past as a radical decolonial future in the present. They offer the doubleweave, a Cherokee basket weaving technique, as a metaphor for story-telling, drawing attention to the *asegi* (or queer) narratives that remain hidden in-between the two skins of the basket. It is within this framework that I situate my project, *Forest Tales*.

6. While the hand-crank mechanism worked in theory, it failed to be a practical human-powered energy solution. On a weekend shoot, I managed to get three minutes of camera power for a mobile phone from twelve hours of hand-cranking. Bicycle power, while significantly better (only needing four to six hours of labour for two hours of battery power), still only allowed for a very stringent shooting ratio.

7. While this was the first performative iteration of the project, it built upon a previous text-based incarnation, *Forest Tales: Proposal for An Ecological Cinema*, which took the form of a press kit for a forthcoming production of the film. The press kit can be accessed at https://handspuncinema.files.wordpress.com/2015/11/foresttales_proposalforanecologicalcinema.pdf.

8. The kriya is a yoga-inspired meditation/visualization which leads participants in an exercise of becoming-plant.

9. A more recent incarnation of this project used the concept of a "motion-picture" in order to engage the cinematic. In this performance, audience members were asked to "become-sprocket" (rather than become-camera) and advance a series of still images, literally putting pictures in motion, while I performed the soundtrack.

10. This is an annual event organized by 3rd i Films, the oldest South Asian media arts organization in the United States: http://www.thirdi.org.

11. It must be noted, however, that the aspirations of most indie filmmakers is not to remain independent forever, but rather to use platforms such as film festivals to eventually plug into industrial networks of cinematic production and distribution.

12. According to a recent UN Press Release (2019), the world produces 50 million tonnes of e-waste annually, only 20 percent of which is currently recycled. Global e-waste output is set to reach 120 million tonnes per year by 2050 at current rates of consumption.

13. See http://wearealbert.org/ and http://www.bafta.org/initiatives/sustainability/video-greening-screen.

14. See http://www.greenproductionguide.com/.

15. As long as cinema is tied into capitalist modes of production—for instance, the arts and culture industry contributes 4 percent to the GDP of the United States (Florida)—it is "eco" as a function of the economy that continues to be prioritized over "eco" as a consideration of the environment. Further, these strategies are

largely voluntary in Hollywood, which means a very small percentage of the industry adopts these eco-friendly practices.

16. Spawned through my distributed intelligence with artist/scholar Praba Pilar (and our collaborative project *LRS: Larval Rock Stars*), the "larval" is a shifting position that is always moulting, always metamorphosing toward embodiments and practices that are contingent and in response to political imperatives. The "question mark" is the engine that activates and engages our arousal toward a more-than-human ethics that seeks to move us away from necrotic egocentrism and toward biotic ecocentrism.

17. Roma Chatterji (2015) illustrates this through her work on the *Pat Chitrakars,* an itinerant story-teller community of West Bengal who use scrolls to tell traditional stories from the epics alongside modern tales (such as the story of 9/11). The celluloid and the digital also engage the scroll, but in different ways—the former by collapsing the image into the cinematic reel, and the latter by turning the scroll into a linear form. Therefore, in the next instalment of this project, I intend to use scrolling as a method to illuminate what Elsaesser calls the "history of imagined futures in the past," and the "rewriting of the past in light of the future" (2014, 48).

18. The 2015 #OscarsSoWhite controversy revealed the disparity in representation and access for people of colour in Hollywood to this day. Similarly, it has taken over a century of cinematic production for Dalit-made films, such as Nagraj Manjule's *Fandry* (2013) and *Sairat* (2016), to achieve popular success in India.

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