

## ARTICLES

### Surprising Pedagogy through Japanese Anime

duskin drum

*Dedicated to Darya Dudkina*

A polar bear, a penguin, and a panda ride in a jalopy. A jalopy decorated to distinctly resemble a panda. It is a panda-pomorphized jalopy. Soaring house music plays. The lyrics are a mix of Japanese, English, and Hawaiian. The sequence cuts between the joyriding endangered animals and picnics and their other fun activities. They drive through a hallucinogenic wall of yellow butterflies into a forest and out again, onto an elevated highway over the ocean. Suddenly, the polar bear driver touches a button, and the jalopy transforms into a rocket sled resembling a penguin. The rocket rises through the air and then descends, crashing through ice and glaciers as the music swells to a saccharine crescendo. Happy lyrics proclaim, “mocha a latte like it all the time” (JP 2012). This is the opening sequence to *Shirokuma Café* (Polar bear café; Masuhara 2012), a cute Japanese anime about Panda, a young panda who finds a café run by Polar Bear, a polar bear. Adapted from Higa Aloha’s (2006–2013) four-panel cartoon, animals go about their lives in the city like regular human people. The cool calming “normal” everyday lives of animals in the human city contrasts harshly with real situations of endangered animals like polar bears, pandas, penguins, giant tortoises, and three-toed sloths. Watching zoomorphic vehicles driven by anthropomorphized, endangered, charismatic mega-fauna smashing through ice, I realized this is about climate change and denial. Could I teach with this?

At the intersection of embodiment, education, and anime, this essay describes how transcultural classroom encounters with anime can pollinate changes in ecological self-conceptions and thus embodiment. Using examples from teaching with anime in Russia and the United States, I describe how interpretive encounters shifted students’ ecological self-sense and conceptualization of embodiment. In the classroom, anime acted as an interpretive device for teaching contemporary thought about ecology, technology, microbes, animal-human figures, interconnection, and interdependence. I present evidence of oddly successful encounters between local Japanese cultural/embodied contexts of anime and its partial connections to globally shared human ecological and technological situations. In these transcultural encounters, the Japanese anime are like bees, pollinating and germinating material and conceptual possibilities that are incipient for the students but not easily possibly without outside pollination.

This essay also contributes to teaching philosophy and social science with transcultural popular culture and demonstrates the significance of popular culture for popularizing scientific knowledge. Exposing students to changing understandings of ecology, microbiology, evolutionary science, and climate science can change their assumptions about embodiment and transform ecological awareness.

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## Anime Shaping Cognition

I have been thinking and feeling with anime or Japanese animation for a long time. Until relatively recently, *anime* referred specifically to Japanese-style graphic animation. *Anime* came to English from Japanese. It is a verbal shortening of *animēshon*, the Japanese loan translation of the English “animation.” In English, *anime* came to distinguish Japanese animated movie pictures from non-Japanese “animation,” including “cartoons” like those made by Disney, Warner Brothers, and Looney Toons, or stop motion animation like the works of Jan Švankmajer or *Wallace and Grommet*. As Japanese animation techniques and styles have slowly become global, the term *anime* has been loosening to include graphic animation from all over the world, but for the purpose of this chapter, I use *anime* restrictively to mean the technique and style developed in Japan and mostly produced there until the twenty-first century.

My first formative experience, at nine years old, was seeing Studio Ghibli’s *Castle in the Sky* (Miyazaki 1986) on the big screen. I was mesmerized by the bright colours and vivid realism in fantastic settings, and I idolized the empowered and in-flight child-pirate characters, and in the long term, I remain convinced by the evocative images of technology and nature entwined. The most compelling image in *Castle in the Sky* is the last lonely robot tending and caring for the birds, flowers, and trees. Saint Francis as a robot. Continuing to watch anime, the stories, concepts, and images came to influence how I think and feel. They have played a part in shaping formal aspects of my sentiments, understandings, and imagination. In graduate school, anime offered a handy kit for enlivening my studies of ecological thought, performance, and anthropology of science and technology. I use anime and manga to understand and interpret theoretical academic readings and, further, to connect my own experiences to more theoretical frameworks. Most deeply, I am influenced by brilliant ecological philosopher Miyazaki Hayao and his Studio Ghibli.<sup>1</sup> The success of Ghibli has influenced the anime medium to promote ecological themes (Napier 2001). Ghibli movies like *Mononoke Hime* (Miyazaki 1997), *Spirited Away*, and *Pom Poko* connect not only to contemporary philosophy, phenomenology, and sentimentality but also to a longer Japanese recognition of inherent spirits potent in all things, even technological artifacts (Ito 2018; Wake 2017; Wright 2005).

The pleasure of valuing how anime shapes my thinking and feeling led me to co-create a first-year college course with anthropologist Joe Dumit. In this course, titled Ecology Technology Anime, we taught aspects of ecological criticism, sociocultural anthropology, and feminist science and technology studies using selected anime.

## Anime Embodiments: Fiction, Fashion, and Community

Something about anime fandom enables a different and more diverse communal embodiment than normative political identity modalities. While anime has been an influential mainstream medium for motion pictures in Japan, and recently for a global audience, anime has also been part of “minor key” or “alternative” culture. Anime has distinct styles and aesthetics that have slowly become global.<sup>2</sup> Anime aesthetics affect embodiment not only in Japan. This influence is most obviously seen through costume play and fashion and by acting as a nexus for subcultural social manifestations (Lamerichs 2011, 2013). In graduate school, I joined the screenings of our university anime club. I was wonder-struck by the spirit of the organization and its constituents. It was not just a bunch of mecha or hentai obsessed boys. The UC Davis Anime Club was extremely diverse, weird, queer, and energetic—far exceeding conventional identity and social group categories. Here there were fits for the ill fitted—and extraordinarily careful, but playful care in interaction. Some communities of anime fandom are extraordinarily supportive of

difference. In another eerie and disturbing example of anime affecting embodiment, as a professor teaching anime, I was consulted by police conducting an investigation of teen suicide in Russia—the police wanted to scapegoat anime and video games with anime aesthetics as an essential factor in a series of teen suicides.

### **Transformative Pedagogy of Anime**

Quite contrary to viewing anime as either frivolous or culturally specific, I argue that anime is globally, philosophically, and anthropologically potent. This essay presents classroom encounters with selected anime that pollinated performative transformations of ecological self-conception and self-enactment. I use *performative* not in its recent popularization to mean fake or cynically unhappy performatives. I mean *performative* in the academic sense of semantic utterances, formal displays, or epistemological methods that have transformative material, psychological, and social effects despite being mostly semantic or symbolic (Austin 1975; Mol 2002; Law 2004). Students were compelled or inspired to utter speech, write formulations, and think thoughts that changed their position, expression, and self-conception within the world, or, perhaps better, our global human ecological mesh. In other words, their sense of embodiment changed.

Contrary to simplistic cultural theorizations of cultural consumption, objectification, and exotic fantasies of cool Japanese culture, I demonstrate how transcultural encounters through media can be transformative. Aesthetically and emotionally potent but imperfectly understood stories, themes, and scenarios cause students to return their gaze upon their own circumstances, refiguring the embodied and ecological experiences of students in their own context without harming Japan or Japanese culture. Enjoyment, even orientalist enjoyment, allows students to get into it. Aspects of particular anime series or films turn into interpretive devices when gaps in knowledge of Japanese source culture allow the interpretive devices to occupy the embodied and ecological awareness of the student, producing a novel experience of their own ecologically and cultural specificity. Not quite understanding the commonsense of the anime, their own commonsense becomes strange, opening up possibilities for change. The decontextualization of anime references to Japanese embodiment leaves open threads of association and correspondence that prompt new connections within local ecological awareness and technocultural assumptions.

After watching *Ghost in the Shell II: Innocence* (Oshii 2004) and reading Donna Haraway's "Cyborg Manifesto" (2016) with a seminar at UC Davis, a student asked: "Will man ever realize the dream of perfect integration with a system of control? Will a true cyborg ever exist?" In answer, I stood and said, "Everyone stand up." Almost synchronized, the students all stood up. "That's your answer," I said.

Students might imagine—dear reader you might imagine—we would be studying Japan and Japanese culture. But really the study is of ourselves and our ecological situations or relations. Education is an embodied experience. An experience interconnected with and for the wider manifold of particular ecological relations, known and unknown, creating and capacitating particular lives—within local manifestation of wider mesh of relations. The course provoked students to reflect and transform conceptualizations of embodiment and enmeshment in ecological, including technological, relations. When these changes are precipitated by speech, writing, and semantic thought, I consider them to be performative. Classroom education has the potential to change, modify, and open up students' sensibility of their ecological embodiment. What is taken for granted and what is perceived as causal though ethically important, what is assumed and what is counted, what is valued and what is considered irrelevant can change.

After teaching Ecology Technology Anime at UC Davis, I developed the course into a public lecture series, a massive open online course (drum 2019), and most recently, again, as a seminar. Using three examples from this seminar at the University of Tyumen in Russia, the rest of this essay shows how teaching with anime opened possibilities for changing embodiment and ecological self-situating. First, in an open discussion responding to *Shangri-la* (Bessho 2009), a student described how surprised she was to see little girls and women in charge of everything. Another agreed vehemently. This led to a surprising and intense conversation about gender and power in Russia. In the second case, after watching *Moyashimon* (Yano 2007) and reading Hannah Landecker's "Antibiotic Resistance and the Biology of History" (2016), the conversation turned to winter antibiotic treatments. We realized that our microbiomes were probably impacted by each other's winter treatments, and then a student extended the realization to antibiotics in industrial meat production shaping our microbiomes. In the third case, after reading "Cyborg Manifesto" and watching *Ghost in the Shell II: Innocence*, the course final examination caused students to feel how they themselves enact and embody the circuits of disciplinary control. Disciplinary control they normally imagine as social and institutional subjugation.

Every anime selected for the course had global climate and biological issues but also featured tropes and conventions distinct to Japan. The decontextualization of distinct Japanese cultural content enhanced the performative possibilities of transcultural cross-pollination.

### Girls Run Everything

"What I noticed in *Shangri-la* is little girls are in charge of everything... it is so strange."  
 "Yeah, I noticed that too," replied another student. They marked a salient feature I never noticed before, nearly all notable and powerful characters in the series are women. Looking around the classroom and seeing only one male student, I was compelled to ask, "Well, what about women and girls in charge in Russia? What makes this strange in the anime?" The prevalence of female leaders in *Shangri-la* led to an extended conversation about being a young woman in Russia and seeing a lack of women in positions of political or economic power. After listing Russian female political and business leaders, a student noted that their power and affluence derived from their associations with powerful men, fathers and husbands. While perhaps not a revelation about Russia, the anime opened up a conversation about gender embodiment and power we might not have had otherwise. I believe it was an important collective conversation and acknowledgment because the discussion was in an educational institution environment.

Based on a novella, or light novel, by Ikegami Eiichi, *Shangri-la*—a strange, brilliant, somewhat choppy and disjointed, but fun anime—is the story of Hojo Kuniko, a young juvenile delinquent trying to do right. She is heir to an anti-government terrorist organization fighting against a utopian redevelopment project. The story is set in a Japan overwhelmed by global warming, rising seas, feral genetic engineering, and earthquakes. I originally chose the anime for its delicious treatment of climate change, seawalls, and global carbon markets rather than issues of gender and power.

Initially, no normative female gender roles—mother, grandmother, wife, girlfriend, employee, or mid-level manager—appear in the anime. Even the comforting pickle-making grandmother, Hojo Nagiko, is a master carbon trader and head of an international terrorist organization called Metal Age. In *Shangri-la*, powerful women run everything, partially aided by mostly incompetent and bumbling but cute men and boys.<sup>3</sup>

Hojo Kuniko, the protagonist, is a powerful, brash, kind, and idealistic teenager. The character reminds me of strong young female characters in Miyazaki's work, particularly *Nausicaa* (2012). I do not know whether Kuniko speaks to the empowerment of women within a Japanese media context, but her character design and the fan service of her extremely short skirt hail heterosexual fantasies.<sup>4</sup>

Naruse Ryoko is the main villain. She is the leader of the misguided corporate utopian mega-skyscraper or arcology called Atlas. Ryoko is in charge of sacrificing children for this architectural quest to save Japan. She is totally powerful, a sadistic sexual character dominating a team of talented men and beautiful boys.

The most physically powerful person in the serial is a transwoman named Momoko, who is Kuniko's mother. Momoko is a campy man-hungry transvestite who is an expert in hand-to-hand combat and whips. Despite seemingly written to play on the uncomfortable humour of homophobia and transphobia, her character shows yet another powerful woman character.

Mikuni, a creepy, light-sensitive, weird princess, has mysterious telepathic powers that cause people to die if they lie to her. She is tiny, cute, infantile, cruel, and filled with wonder. Her guardian, Sayako is yet another powerful woman, a doctor and a military commando.

Ishida Karin is a rich orphan/latchkey kid who has become a super hacker and predatory carbon trader. Deeply lacking in sympathy for others, she is infantile, talks to herself through her teddy bear and wants to see her parents who, unbeknownst to her, are dead. She is super powerful, although she has not been outside her birdcage-shaped house for years. Karin has sufficient power through online carbon trading to threaten and crush national economies.

In our class, the representations of women and girls in power in *Shangri-la* became a device for interpreting lived experiences of gender inequity in Russia. The young women in our class were inspired by the exaggerated power of women in *Shangri-la* to new articulations and conceptualization of their positions (embodied) as female in Russian society. I heard talk about Russian culture being intrinsically conservative and reverting to traditional values, including gender roles, though some Russian colleagues argued this conservatism is a contemporary fiction being invented in response to the chaos of the 1990s. Since the end of the Soviet Union, the number of women in positions of economic and political power has dropped (Usanova 2020). Vladimir Putin has empowered a handful of anti-liberal and anti-feminist women in government and media. Whether from emerging conservative fantasies, deep cultural roots, or somewhere in between, male supremacy has been on the rise in Russia. The year before our class, the Russian Duma decriminalized spousal abuse (Usanova 2020), and students were well aware of the many sensational media reports of men murdering their wives. *Shangri-la* triggered a timely conversation in our classroom.

## Antibiotic Treatments and Our Shared Microbiome

Microbes, bacteria, viruses—we didn't care about them much because we cannot see them, but it doesn't mean that they do not have an influence on our lives.

—Darya Dudkina

In this second case, our transcultural encounter with *Moyashimon* (Yano 2007) and Landecker (2016) changed how we felt our shared microbiome. A very peculiar Japanese anime exploring microbes opened us up a to performative reconceptualization of our bodily selves.

In the seminar we, more porous and collective, realized, first, that all of us were subjected to each other's winter antibiotic treatments and, second, that we share in the massive microbiotic modulation of industrial scale antibiotics in meat production. A microbiome is a term for characterizing living ecologies of microorganisms like fungi and bacteria in an environment such as a body or a community of bodies. The students began to feel themselves as microbiomes. I asked, "Did anyone get antibiotic treatment this winter?" Some students raised their hands. "Well, I guess we were all treated. We were all modified—our bacteria changing in communication with each other and their reactions to the antibiotics." There was a subtle shift in the feeling of the room as we settled into the weird intimacy of being fuzzy porous bodies made of and with clouds and wisps of bacteria, fungi, and tiny arthropods. Then a student put together our shared antibiotic treatment with the industrial meat industry. She pointed out we are all thus modulated and affected by the antibiotic feeding of chickens, pigs, and cows. We share a regional, and possibly global, antibiotic-altered microbiome. Landecker's stories of industrial biology changing the biology of nature became part of our self-perception and ecological awareness. We experienced a shift in our conceptualization of embodiment, feeling ourselves as both a microbiotic collectivity and as aspects of the environments and ecology of other beings.

*Moyashimon* is a serial television show about a college freshman, Sawaki Tadayasu, who sees fungi, bacteria, and other microscopic life with unaided vision. Based on a successful *seinen* manga (Ishikawa 2004–2014),<sup>5</sup> the show follows his induction into a university lab obsessed with fermented food, beverages, and terraforming. *Moyashimon* is relentlessly cute. Its opening sequence is a stop motion animation of plushy anthropomorphized yeasts, molds, and bacteria bopping around to a catchy soundtrack. *Moyashimon* is a sitcom about a young man with a special ability and his adventures with his new friends at university. It is also the story of relationships between humans and fungi (or yeast), particularly relationships embodied in food and alcohol. The human characters are academic fermented-food nerds, cute college kids, and sake aficionados. The yeasts and bacteria appear as little guys with cute, squeaky fun cartoon voices. Their voices and figures correspond somewhat to the visible physical characteristics of the microorganism observed under microscopes.

The protagonist Tadayasu grew up in a family business propagating yeast starter for miso—a popular and culturally important Japanese fermented food. The animation starts with Tadayasu arriving at university with his best friend, who grew up in a sake brewing family. Sake is Japanese rice wine—made from fermenting rice with some of the same yeasts as used to make miso. Tadayasu can see microbes with his bare eyes, and the anime audience gets to see what he sees, often humorously juxtaposed with what his friends see. The show plays with the visual irony resulting from the differences between Tadayasu's and other characters' perceptions. In an early episode, Tadayasu walks down a hallway, hands outstretched in front of him. The air is so crowded with floating yeasts that he cannot see where he is going. We see both his crowded view and the humorous view of his friend, who sees Tadayasu walking slowly and tentatively, hands waving, down an empty looking hallway.

*Moyashimon* is an effective way to introduce the social, political, and interpersonal aspects of microbial worlds, microbiomes, and microbial ecologies. Not to mention the microbial terraforming of the planet. Alongside our viewing of *Moyashimon*, we read Landecker's (2016) history of mass industrial production of antibiotics and pesticides from yeast byproducts. Industrial chemicals and medicines are brewed like sake or miso. And she describes how the industrial application of the science of biology has transformed biology on the planet. Antibiotics are from particular yeasts from particular places and soils. When cultivated in massive quantities

and spread all over, they transform soils, places, and bodies. Landecker points to microorganisms developing and trading antibiotic resistance as a measure of this transformation. Landecker's history of antibiotics and pesticides invites the reader to consider their effects at a global scale. Growing and distributing biological biocides is transforming bodies, soils, and the globe.

Culture, particularly food culture, is a complexity of animals, plants, human labour, and the work/metabolisms of microbes, which includes fermentation. Landecker's article coupled with the television show *Moyashimon* works well to connect students' everyday living to the science of the microbiome. This scientific knowledge is still not part of global cultural commonsense (Helmreich 2014). Anime and other lowbrow entertainment are crucial for the slow popularization of new science. *Moyashimon*, a silly and cute anime, works as a modality for talking seriously about biology (Wood 2019).

In *Moyashimon*, there is a special character, a microbial monster. It, he, they first appear gliding down the street as a shambling mass of microbes. In terror, Tadayasu hides, then, out of curiosity, he tracks the monster to its lair. The monster turns out to be a collector and an aficionado of fine sake. He also runs an exclusive and secret sake bar where he later instructs the main characters in the secrets of sake. In the show, this character's particular affect makes him beloved to the microbes who live and thrive with him. In an apt synecdoche for us all, the microbes are like his familiars. In a longer story arch, the germophobic clean freak Oikawa Hazuki becomes a microbial monster herself.

In our classroom, *Moyashimon* coupled with Landecker opened up a new sensibility of our intertwined anatomy and biology. We began to feel and conceptualize a more ecological version of our bodies and health. This is an example of how knowledge can performatively shape our embodiment (Deloria 1999; Mol 2002; Law 2004). This microbial knowledge encounter remains especially poignant because one of the students, Darya Dudkina, tragically and mysteriously died. This essay is dedicated to her. She went to the hospital one day for some follow-up tests and never came back. I do not know her cause of death. Darya's death haunts me. I worry the intimacy and realness of thinking with bacteria and fungi is dangerous. Her father later brought me her last note about our class. The note ended with this postscript: "I found it interesting that there is a monument 'in honor of laboratory animals'—but nobody made a monument for the microbes that helped to create thousands of different medicines and save humans life. It looks like a kind of speciesism."

### Examining Cyborg Discipline

The third encounter took place during our final exam. The students experienced their cybernetic agency in embodied implementation of education discipline. A discipline they formerly understood as simply subjugation. I prepared quite a severe final exam intending to provoke study and review of key concepts. I invited them to prepare one double-sided sheet of paper with notes and an essay outline to be used during the exam. On the day of the exam, I offered them the option to take the whole exam, only the essay section, or skip the exam and be graded on their study sheets. I left the classroom to let them debate and decide. I told them I required a consensus. A heated debate ensued for twenty minutes or longer, as the students grappled with their investments in enacting their own disciplinary apparatus.

The students told me their struggle for consensus produced a revelation about their participation in their own biopolitical discipline, including classroom discipline, all along. The pedagogical twist of requiring the students to collectively chose how to take the exam revealed power and

control to be more distributed than we initially realized. Quite accidentally, I should admit—my main motivation for offering the option to skip the exam and grade the cheat sheets was to watch a bit of anime instead.

We had just finished looking at *Ghost in the Shell II: Innocence* (hereafter *Innocence*). The film was coupled with Haraway's ever challenging and rewarding "A Cyborg Manifesto" (2016). *Innocence* was a long-awaited follow-up to internationally successful film *Ghost in the Shell* (Oshii 1995; Ruh 2016). *Innocence* is a science fiction detective story and, more subversively, a child abuse revenge story. The film is acclaimed for its philosophical writing, successful convoluted plotting, and gorgeous animation. The rare scenes of intense graphic violence punctuate long drawn-out philosophical conversations between two government cyborg police officers named Batou and Togusa. These cyborg detectives investigate a series of murders committed by apparently malfunctioning sex-slave robots. *Innocence* takes place in a world where most people have some neural interfaces to computer networks and services. Everyone is partly cyborg—their bodies an integration of biology and technology. Batou's body, including organs, is almost an entirely manufactured and grown artifact, whereas Togusa has only the minimal information connectivity, basically a smart phone installed in the brain, required for work. Due to cybernetic modification and neural technologies, everyone in this futuristic world is vulnerable to direct instrumental mind and body control. The aspect of mind that makes people autonomous individuals is called their "ghost." Ghosts are vulnerable to destruction, infiltration, and expropriation. The detective story/revenge fantasy in *Innocence* hinges on a conspiracy: orphaned children are secretly imprisoned in medical comas that allow their ghosts to be exploited to provide more authentic emotional texture for commercial sex androids called gynoids.

Haraway (2016) describes social institutions and technologies as techno-cultural circuits. These cybernetic circuits, or systems of interconnected relational feedback loops, shape and control us and constitute our social embodiment. Social institutions such as medical technologies and healthcare, education, and even concepts of personhood can be understood in terms of cybernetic circuits. We are agentic in our cybernetic loops whether we acknowledge and cultivate responsibility or not. People are biological beings modified and shaped by systems of social-cultural circuits. Haraway's manifesto stimulates reconceptualization by introducing semiotic reflection and activating feedback loops implicating ourselves in systems of relational feedback circuits forming, figuring, and conducting us. She initiates a more troubling agentic position in the net of human apprehension. A person is not simply an accidental property of oppression and institutions; rather, they are implicated in operating their oppressions and institutions. Cybernetics, with its language of commands, controls, and feedbacks, is a way of understanding our lack of autonomy while retaining the agentic implications of circuits. "A Cyborg Manifesto" describes a discursive and technically distributed embodiment. In this theory of embodiment, a person or cyborg is a node of partial connection between multiple superimposed partially connected networks. Importantly, these networks, also called social institutions and technologies, are both material and semiotic. The backgrounds and settings of the *Innocence* are a visual history of communication and media technology—the very same devices and artifacts Haraway describes as integrated cybernetic circuits.

In *Innocence*, the director wants us to know he is thinking with Donna Haraway by naming a supporting character "Haraway." She even looks a bit like Donna Haraway. Unlike the real Haraway, Detective Haraway is a chain-smoking police forensic medical examiner. The character, nearly quoting "A Cyborg Manifesto," explains all human reproduction/production of person-like beings, such as children, pets, dolls, is a particular kind of sloppy artificial programming. Every child is a cyborg wired in social feedback circuits.



The original *Ghost in the Shell* film centred on another full cyborg, Batou's former partner Major Kusangi (Ruh 2016). The government owning her artificial body troubles her. Was there any part of her that is truly her own? If we are properties of social technologies and environmental or ecological circuits, do our souls or ghosts have any autonomy or self-determination? What part of myself is my own property? Cyborg figures, according to both the film and Haraway, do not have that mythical self-possession and autonomy of an "enlightened" freeman. Instead, they, we, are strung up like puppets. In the first film, the major achieves a kind of freedom by first destroying the government body and then having transformational, almost-sexual, congress with a fugitive artificial computational intelligence. The only way through the problems of limited autonomy and agency that come with being cyborg is to embrace circuits and attempt to effect agency through them both locally and remotely.

In *Innocence*, Batou muses about the situation of an individual soul and body among the complexities of collective information patterns. He muses about beaver dams, reproduction, and philosophy. Haraway, in the movie, teaches us that making children (and thus, adults) is like making cyborgs. As profanely cybernetic and artificial as replacement limbs and organs, human persons are socio-technically programmed artifacts, software circuits in original biological bodies. Togusa is controlled emotionally and behaviourally by his concern for his family. Batou's vision is hacked and manipulated through his habits of care for his dog Gabriel. Emotional care is implicated as vulnerability and formal leverage in social circuits and feedbacks. The children are enslaved to sell their captured spirit to the libidinal desires of powerful businessmen, politicians, and gangsters.

The importance of cognitive feedback loops, reflection, and analysis is emphasized in the movie by scenes of the characters' minds, or ghosts, being infiltrated via their communications cybernetic augmentations. They experience distorted perceptions, hallucinations, and altered emotions. Hacked like this by the villain Kim, Batou and Togusa experience a mental maze in the form of repetitions of an experiential theme. The same actions, encounters, and conversations happen over and over with variations, a horrible repeating virtual reality loop preying on their fears and doubts, until they crack the puzzle. This scene of looping capture, repetition, feedback, and modulation became a focus of our classroom discussions.

Later, I demonstrated the effectiveness of institutional/cultural circuits in the twenty-first century cyborg human by reprising the exercise of asking the students to all stand up. And they all stood up. I explained their easy synchronized acquiescence to my institutional authority in the "please stand up" exercise demonstrates an embodied cyborg experience of being circuited in institutions, architecture, social roles, and power. These circuits can be wireless. Minimal brutal somatic strings are required for almost full cybernetic control, as suggested by the title of Norbert Wiener's terminal book on the subject: *The Human Use of Human Beings: Cybernetics and Society* (1988).

The final exam was an example of the cybernetic control described by Wiener, but like Haraway's evocative description, it opened up the imagination and experience/habitus, thereby implicating a partially agentive self in enacting real and imagined oppressions such as disciplinary practices in education. Reading and discussing "A Cyborg Manifesto," reinforced by watching Batou and Togusa break out of a virtual reality mind control loop, the students began to form conceptual tendrils to grasp how the cyborg figure is meant to structure or infuse thought—a progression of exposure and activity leading to a kind of reveal—the tools to conceptualize what happens to a participant in a feedback loop.

In the students' deliberation about how to take the exam—the conflicts and experiences revealed a surprising attachment to the exam. One described the experience as so emotional that she cried at the prospect of not being examined. The exam and classroom were temporarily starkly denaturalized. The students faced their attachment to the devices and manifestations of the disciplining apparatus, the punishing competitive ranking. They were incapable of not taking the exam when offered the option. The exam was crucially difficult to quit entirely because of students' differential preparations—and their possessive need to enact competition, and punishment for those who prepared less. “Fairness” requires enacting inequality.

The concept of circuits brings to consciousness how biopower is enacted and embodied in patterns. Within the manipulative loops in *Innocence*, the trap closes when the viewer realizes “this is a trap”—no exam will ever feel like it did before. The film's characters escape, both the detectives from Kim's loop as well as the children enthralled to the profit margins of enslavement. My students lost their innocence of the cruelty of the exam by becoming co-implicated, much like the imprisoned children who become manipulating murderers to rescue themselves in *Ghost in the Shell II: Innocence*.

### **Egress: Embodiment Transformed in Interpretive Encounters**

Although *Shirokuma Café* seems fun, it is treacherous. The slippery cartoon harmlessness of anime gently opens up analysis, modulates knowledge, and perhaps stimulates changes in experience and ecological self-conception. My class had simple analytical intentions in coupling critical academic readings with appropriate anime, but in practice, the classroom experience exceeded analysis. Our learning expanded to shifting our embodied and ecological awareness. Perhaps you do live in a city and go to cafés in a world where polar bears, penguins, and pandas may go extinct because of humans; maybe only humans can save the other animals from humans.

Thinking with anime in the classroom can be a transcultural encounter that pollinates a felicitous performative learning environment. By *felicitous performative* (Austin 1975), I mean students were inspired to utter speech, write formulations, and think thoughts that changed their position, expression, and self-conception in the world—discursive and semantic formulations that manifested practical and behavioural changes. In other words, our transcultural encounters with Japanese media performatively changed our sense and enactment of embodiment. Further, this performativity was enabled by partial decontextualization of anime from Japanese culture. This happens when mainstream media from one culture is encountered in another as minor key, alternative media. The anime I selected is at once global and Japanese. The partial connection of planetary and global themes connects students to the anime stories, but they can only partly grasp Japanese references and tropes. In the encounter with Japanese anime in Russia, our limited Japanese cultural context opened up possibilities for changing interpretations of our own contexts. Anime acted as an interpretive devices. Thinking with anime invites students to intellectually inhabit these devices. They mentally attend to the known connections and, in the process, apprehend previously unrecognized aspects of self-situation. In the absence of informed understanding of the interplay between anime and Japanese embodiment, our experiences and our ecological situation were reinterpreted or translated. We were provoked into not only intellectual and analytical reinterpretation but also feeling, inhabiting and relating differently.

As Walter Benjamin ([1978] 2007) argues, better translations sacrifice fidelity to the original language in favour of transforming the destination language. Orientalism is basically bad or lazy translation. But it would be foolish to think of translation through a simple good/bad

dichotomy. Every act of translation or encounter with partially foreign media provokes a profusion of possible translations or interpretations. Encountering anime contextualized as ecological pedagogy changed experience. Good translation or performative encounter that exceeds Orientalism, tourism, and consumption, elegantly recalls director and theatre anthropologist Eugenio Barba's articulation of travelling performers bartering with their hosts. Barterers are most successful when the visiting performers enable something the hosts need or want but could not achieve without the visitors. Anime encounters can be cross-pollinations like this—visiting interpretive actors from Japan that activate incipient possibilities. In my classes, the anime performing as interpretive actors pollinated and activated changes in our political-economic and ecological self-conceptions.

My program of ecological education was successful, achieving and modulating awareness. My students learned to think big even while acknowledging the locally weird, including the intimate local strangeness to our own (often nonlocal) embodiment and consciousness. While the encounters and performative effects I describe and valorize here could be activated by many different kinds of media, teaching with anime is particularly fun. The pedagogy with anime described in this essay opens up possibilities for teachers at all levels and anywhere in the world (Ruble and Lysne 2010). Each Japanese anime subgenre—such as healing anime, Yuri, magical girl, sports, music, and more—offers a compelling and engaging transcultural archive to teach topics like friendship, family, love, gender, habits, relations, histories, intersubjectivity, law and crime, war and peace, and embodiment and consciousness.

## Notes

1. I am most influenced by the 2012 Miyazaki Hayao manga titled *Nausicaä*. Manga, the Japanese name for graphic storytelling, is very influential and interconnected with the anime industry and fandom. In graduate school, Gretchen Jude and I had a reading group about *Nausicaä*.
2. This decade is global. Netflix has begun producing original anime for a global audience. This globalization develops out of anime's stalwart global fandom, the offshoring of parts of the industry to Korea and Japan, early US television and cable broadcasts like *Adult Swim*, *Speedracer*, and *Robotch* (Newitz 1994), and Disney co-productions of dubbed US releases of Studio Ghibli films.
3. These little girls and women in power are not *per se* a matter of Japanese feminism but may rather be part of genre conventions in *shonen* manga and media. Fan service is an example of these kind of conventions. Shonen has traditionally targeted a young male audience, but manga editor M. J. Beasi (2010) also points to fan service for girls and women in supposedly shonen magazines. Manga and anime do have whole genres and publications called *josei* and *shojo* conventionally dedicated to women and girls, respectively.
4. Fan service (ファンサービス *fan sabisu*), fanservice, or service cut (サービスカット *sabisu katto*) is material in a work of fiction or in a fictional series that is intentionally added to please the audience. The term originated in Japanese in the anime and manga fandom but has been used in other languages and media. It is about “servicing” the fan—giving the fans “exactly what they want” (Wikipedia, n.d.).
5. *Seinen* originated as a publishing term for the demographic target audience of young men.

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