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Iris Chen April 10, 2023

Towards Asian/American Time Being Ecologies: Naturecultural Migration/Invasion within Ruth Ozeki's *A Tale for the Time Being*

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Abstract

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By Iris Chen

To explore the human and nonhuman participation within and construction of Asian/America, this thesis examines how nature and culture intertwine to build landscapes within the transpacific Asian American novel, *A Tale for the Time Being*, by Ruth Ozeki. The discipline of invasive ecology and the wilderness conservation movement has undergone intensive debate over terminology such as "invasive", "alien", "colonizing", etc. that cannot be separated from the sociocultural circumstances of America throughout the twentieth century. Within Asian American studies, there has been increased engagement with indigenous studies to confront Asian American participation and advancement of settler colonial hegemony within the United States. Furthermore, there has been a move away from the "flyover model" to account for the Pacific Ocean as a specific space of discursive production within Asian America. Thus, in my reading of *A Tale for the Time Being*, I pinpoint a Time Being Ecologies reading framework which centers trans-corporeal, more-than-human notions of being and non-teleological temporality. Then, I explore the Time Being Ecologies of three broad critical settings of the novel — British Columbia, Japan, and The Pacific — uncovering the interwoven human and nonhuman Asian American existences produced through determinations of invasivity and nativity which are dependent upon capitalism, settler colonialism, and white supremacy. Finally, I advocate for an abundance-oriented, place-based naturecultural understanding of Asian America which acknowledges and pushes against the expansion of settler colonialist structures and the capitalist delineation of invasivity upon foreign bodies. In doing so, we arrive at expansive and interdisciplinary avenues to pursue invasive ecology and Asian American studies alongside naturecultural praxes that can confront the detrimental consequences of the Anthropocene.

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Introduction

A Walk through Atlanta's Forests: My Introduction to Nonhuman Invasivity

Let us imagine that we are walking through a forested preserve along Peachtree Creek in Atlanta, Georgia. A trail covered in fallen leaves lies ahead and towering tulip poplars envelop the understory. The tulip poplars, ramrod straight, are just beginning to leaf in the early spring — if we squint, we just may see the remnants of seed pods and sprouting new growth on the tip-top branches. Invasive English ivy creeps around tree trunks and monkeygrass juts out in patches right along the trail edge. Moving off the trail into the forest, we may see trout lilies and bloodroot, blossoming in the early spring warmth. Smaller trees lie between the magnificent oaks, sycamores, and tulip poplars. Scraggly ashes, the awkward green shoots of new boxelder growth, Chinese privet, and the jewel-like berry bunches of sacred bamboo intermeshed creating the dense understory of urban floodplain forests. If we listen closely, we can hear the rush of the stream, turbid and rapid after a heavy storm event, the rustling of squirrels balancing on the thin branches above us, and a group of cardinals close by, chirping endlessly and flitting around in the understory. If we exit the forest preserve onto the residential street, the verdancy that epitomizes Atlanta persists but the scenery shifts. The squirrels still run amok, crossing streets and sidewalks. The birds sing in a higher, louder pitch over the revving of car engines, the humming of HVAC systems, and tires bumping over speed bumps. The soaring oaks and tulip poplars scatter with their branches carved around telephone wires and utility poles. Orderly planted crepe myrtles with their reddish mottled bark line the street. Japanese magnolias blossom in front yards. In gardens, planted English ivy and monkeygrass accent leatherleaf mahonia and sacred bamboo shrubs. Glossy lawns, glistening with morning dew (or the drops of timed sprinkler systems), lie alongside children's soccer fields where the dandelions and violets bloom

(at least until the lawnmower trims the grass down). Every space we have traversed within this imagined stroll is a product of generations of interactions between natures and cultures. From the walking paths carved through forests to the invited invasion of sacred bamboo of our forests to the cardinals adapting their calls within urban space, landscapes continously shaped by migration, colonization, and time are ever-present

I have come to know and settle in Atlanta through becoming attune to its naturecultures. During a global pandemic where online education and isolation became the norm, I found solace and community in the outdoors, especially through my internship with Trees Atlanta, a local non-profit that betters Atlanta's urban forests. Through planting saplings, caring for planted trees, and removing invasive species at volunteer projects each week, I integrated myself into the Atlanta forest and community. Connecting with those from all walks of life during projects reminded me, in a strange new world, that human and nonhuman networks are resilient. I was enraptured by forest restoration work and invasive ecology research— joining Emory Ecological Society on campus, taking an Ecology of Invasions course with Dr. Carolyn Keogh, and beginning my own invasive ecology research project. Concurrently, I was curious about the histories of Asiatic invasive species — Chinese privet (*Ligustrum sinense*), Japanese honeysuckle (*Lonicera japonica*), Chinese wisteria (*Wisteria sinensis*), and Japanese hops (*Humulus japonicus*) — ever-present in Atlanta forests and parks with their historic origins marked within their species names. As I, a Chinese American, sawed down large swatches of Chinese privet and sprayed their trunks with a concentrated herbicide solution to finish the trees off, I had to ask: what sort of forest was I restoring, what sort of nativity was I preserving, and did it include my family and me? Many of these plant species flourish because of the shared climatic zone of the Southeast U.S. and southeastern China and Japan where these plants were

introduced from. My extended family still resides in southeastern China. Many of these plants populate the forests that I like to imagine that my father roamed through as a child. At the same time, become familiar with the increasingly rare plant species indigenous to the Georgia Piedmont which hold cultural, medicinal, and nutritional value for the Muscogee and Cherokee populations that were forcibly removed from their homelands have cemented my sense of place and history within Atlanta. At Emory, I have been engaged with the Indigenous Working Path and Emory's pledge to restore Muscogee ties to campus. Through these various interests, I arrived at my thesis topic, centering around questions of human and nonhuman invasivity and indigeneity.

Thinking Through *A Tale for the Time Being*

Through this thesis, which I categorize as bridging both English and ecological disciplines, I aim to understand the *Time Being Ecologies* of Ruth Ozeki's novel, *A Tale for the Time Being,* to work towards a naturecultural Asian/America that carefully attends to discourses of invasion and settler colonialism. Through this research, I will add to the work of other Asian American, feminist, and science and technology studies scholars in continuing to deconstruct the nature/culture divide. Nature and culture have commonly been positioned as a dichotomous pair. Through these understandings, nature becomes an object and an Other removed from culture and the human, thus privy to human degradation. There is a teleological correlation from this construction to the current environmental condition shaped by habitat fragmentation, extinction events, climate change, and natural resource overuse. The terminology of Anthropocene has been employed by environmental scholars to describe the current geological epoch in which human presence can be read in the rock strata ("Anthropocene"). A remodeled understanding of nature and culture is necessary to envision possible futures on this planet. Donna Haraway proffered the

term, *naturecultures*, to destabilize this binary by stressing the entanglement of nature and culture (Cardozo and Subramaniam 2013). Through the merging of nature/culture into one term, Haraway notably relates that nature and culture have never been absolute or developed in distinction of each other. My project will describe the Asian/American naturecultural landscape, reconnecting the human to natural systems through looking at shared migrations and historical discursive formations.

Furthermore, for Asian American studies, uncovering the naturecultural implications of discourses of invasion is especially pertinent when considering the linked legal and political histories of Asian human and nonhuman migrants. When Hewett Watson used native status to establish a correct British flora, he relied on English common law about human citizenship (Subramaniam 98). Tens of thousands of species from Asia and Europe were brought to the Americas during the colonial period. Later, in the late 19th century, as industrialization altered American landscapes and immigration boomed, nativists dually championed the conservation of wilderness and whiteness (Subramaniam 99). Jeannie N. Shinozuka's work, *Biotic Borders: Transpacific Plant and Insect Migration and the Rise of Anti-Asian Racism in America, 1890-1950* traces the shared lineages of plant quarantine laws and Asian immigration bans. Even after immigration bans and plant quarantine laws were passed, foreign plants continued to be imported as "invited invasions", necessary for ornamental, recreational, or agricultural purposes (Subramaniam 99). Through the late 20th century, invasive ecological research began to surge and local and national environmental groups, along with state and federal governments began to prioritize restoration practices. Coincidentally, in 1965, the Hart-Cellar Immigration Act was passed, which lifted Asian immigration bans. In the aftermath of the 1965 Immigration Act, the demographics of Asian immigrants shifted as certain forms of migration were encouraged by the

prioritization of family reunification and professional-class individuals as well as the large population of refugee immigrations from the wars in Vietnam and Korea. As the Asian American individual, human or nonhuman, has become more common-place in the American landscape, clear markers of alien-ness were requisite in creating permissible and impermissible spaces for Asian Americans to inhabit, relying on determinations of usefulness based in whiteness.

There are clear linkages between the Orientalist desire for Asiatic ornamental plants and agricultural/aquacultural products and contemporary discourses on species invasion with the fear and following exclusion of Asian peoples and plants alongside the model minority delineations of the late 20th century. When we think of the rise of anti-Asian violence following the spread of Covid-19 throughout the U.S., rhetorics of non-human (viral) invasion and perpetual foreignness feed into the public imagination and can result in violence and devastation for Asian American communities. Concurrently, we must recall that Asian America often participates and furthers the settler colonial capitalism upon which American hegemony is built. In considering invasive species, we must recall that many of these species have majorly assisted in the ecological imperialism of the New World — the critical alteration of the North American landscape towards spaces understandable by setter colonialists.

In ecological disciplines, a continuing debate on the political implications of invasive ecological terminology has persisted. Through interrelating literature and ecology, I will offer novel strategies for reconciling the tensions within invasive ecological science. In 2011, there was a well-publicized debate over the social implications of invasive terminology. In June 2011, M.A. Davis et al. published an article titled “Don’t judge species on their origins” urging biologists to abandon vilifying non-native species as evolution and migration are dynamic

ecological concepts. Dr. Daniel Simberloff, [1] a notable invasion biologist, along with 141 other biologists retorted by stating that ecologists are not guided by political, xenophobic motivations but the lack of co-evolutionary history that displaces invasive species and that Davis et al. (2011) severely downplayed the effects of invasive species on native ecosystems and biodiversity (Simberloff 2011). Since then, invasive species remain prevalent in public conversations on threats to the natural world and are a heavily researched topic in ecological circles (Greenfield and Watson 2021).[2] Terminology is still inconsistent and unclear despite attempts to both neutralize and unify language (Colautti and MacIsaac 2004).

For the purposes of my thesis, I will defer to definitions of invasive, introduced/non-native, naturalized, and native species that I have encountered through my consistent work in the field[3]. However, these definitions are inherently suspect and constantly shifting. An invasive species includes species that have been introduced to an ecosystem through human-mediated migration, can successfully reproduce in a non-cultivated setting, and cause ecological harm to an ecosystem through crowding out native species or critically altering ecological relationships. An introduced or non-native species is a species that has been introduced to an ecosystem but is

[1] Simberloff, in a chapter in *From Biocultural Homogenization to Biocultural Conservation*, directly speaks to Haraway's work on naturecultures, Cardozo and Subramaniam (2017) discussion of "invited invasions", and Anna Tsing and Eben Kirksey's multispecies ethnographic work. It is clear from this that he is familiar with and finds some value in the work within STS and Anthropology to deconstruct invasive/native and nature/culture binaries. However ultimately, he is reluctant to accept that sociocultural factors can critically affect how we study science, finishing the chapter with the claim that "there is nothing necessarily xenophobic about a desire to preserve traditional biocultures, which is motivated by the same general principles supporting the right of human societies to maintain their cultural distinctness" (Simberloff 2018). In this statement, it is clear that he does not confront a major interjection raised by Subramaniam, Haraway, and Tsing that questions what this "traditional bioculture" is and what it means to preserve it.

[2] Including by me!! I do ecological research on how the removal of invasive Chinese privet in Atlanta floodplain forests alters the plant community composition. There are a lot of interesting points of ecological study within invasive ecology however I contend that we do need to, as invasive ecologists, to assess the sociocultural ties behind invasive determinations.

[3] I gave a lot of thought to whether or not I would redefine invasive/native species but I found for consistency sake, it was easier to defer to these definitions and acknowledge the weightiness of these interactions between ecology and political space.

not necessarily able to reproduce outside of human-mediated events and thus does not cause significant environmental harm. A naturalized species is additionally a species that has been introduced to an ecosystem, is able to reproduce in "nature" but does not negatively affect ecosystem health or has existed within an ecosystem for a duration of time that it has become akin to native. A native species has not been introduced by humans but instead has coevolved with the other native species within the ecosystem for millennia. It is additionally important to note that per Executive Order 13112, signed by President Bill Clinton in 1999, "an invasive species is a species that is: 1) non-native (or alien) to the ecosystem under consideration and, 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health" (U.S. Department of Agriculture). In this definition, it is clearly delineated that economic harm and risks to human health are additionally important considerations for the federal government's concern regarding invasive species. I hope to, through my thesis, continue to trouble these definitions and understandings of invasivity, both of my own creation and of the federal government's.

Overall, I aim to produce an interdisciplinary product that is readable to both literary and ecological audiences and builds a naturecultural understanding of human and nonhuman migration/invasion rather than isolating either discipline. To do so, I will work through three chapters: "Reading as Time Being", "Time Being Ecologies: The Pacific, British Columbia, and Japan", and "Towards Transpacific Asian/American Ecologies". In the first, I will draw from *A Tale for the Time Being* to compose a *Time Being Ecologies* reading framework, focusing on the positionality of the time being which encompasses the human/nonhuman and the abiotic/biotic while being defined through non-teleological time and expansive forms of being. Having constructed this framework, I will then conduct a time being ecologies of the three general

settings of the novel: The Pacific, British Columbia, and Japan. In doing so, I will focus on Ozeki's descriptions the ecological landscapes within the novel and expansively read them through supplemental discussions of ecological research, Asian American studies and Indigenous studies. My final chapter will produce Asian American naturecultural landscapes and praxes through which we can envision futurities. Through my thesis, I will formulate novel frameworks for understanding invasive/migratory nonhuman/human objects, thus troubling nature/culture binaries and devising methodologies for reaching sustainable, posthuman and postnature futures.

Chapter 1: Reading as Time Being

Situated within multipicitous and entangled times and space, *A Tale for the Time Being* by Ruth Ozeki, explores Asian/American landscapes that transgress notions of a stable nation or human. Set in the early 21st century, the novel is narrated primarily by Ruth, a Japanese American writer living with her husband, Oliver, on Cortes Island which lies within Desolation Sound between Vancouver Island and the British Columbia mainland, and through the journal entries of Nao Yasutani, a Japanese American schoolgirl adjusting to living in Tokyo with her repatriated parents. Ruth, having found Nao's journal amongst beach debris on the Cortes Island shore, begins to read Nao's entries detailing her family's return and difficulty readjusting to Japan from their years in Sunnyvale, California. Nao's father, Haruki #2, is reckoning with his termination at a Silicon Valley startup after refusing to code first-person shooter war technologies and the difficulties of finding new employment. In attempting to rebuild his family's life, Haruki #2 falls into a deep depression and suicidal tendencies, unsuccessfully attempting to take his own life twice. Nao attempts to support her father while she is forced to become independent, adjust to education in an unfamiliar language and system, and deal with middle school bullies who take advantage of her otherness and the internet to force Nao out of school through assaulting her while she is having her period, videoing her, and selling her sullied panties on an internet betting site.

However, Nao, throughout this, finds solace in her great-grandmother Jiko, a Zen Buddhist monk, living atop a mountain in the Miyagi prefecture and Zen Buddhist practice and culture. Alongside Nao's journal entries, Ruth narrates the process through which she reads Nao's words and the other letters written in French and traditional Japanese characters enclosed in the Hello Kitty lunchbox the journal is packaged in. Ruth seeks guidance from Cortes Island

locals— Muriel, an anthropologist, Benoit, a French-Canadian, Oliver, an environmental artist, Callie, a marine biologist, and Akira Inoue, a Japanese immigrant who owns a sushi restaurant in Campbell River. Within Ruth and Nao's alternating narration, there are insertions of these translated letters which are from Nao's great-uncle, Haruki #1, who was a kamikaze pilot during World War II. While all the words were in place when Ruth initially flipped through the journal, they disappear in the midst of her writing at the moment when Nao decides that she will join her father in committing suicide, finding no hope in her exploitative job as a French Maid waitress in a Maid Café (where she is forced to sell herself to older men for sexual favors), in her schooling or in her family. Through her dreamscapes, Ruth interacts with Nao's world and resolves the Yasutsani's futures — alerting Haruki #2 of Jiko's encroaching death and Nao's wish to commit suicide, placing Haruki #1's secret French letters in which he reveals his decision to fly into a wave rather than continue the war in his *ikotsu* box for Nao and Haruki #2 to find, and locating the missing words.

The chapters alternate between a third-person narration of Ruth's discovery and reading of Nao's journal and Nao's first-person diary entries which are annotated with footnotes by Ruth in the process of translating Japanese characters or cultural references. Nao's diary itself is a hacked antique edition of *Á la recherche du temps perdu* by Marcel Proust, purchased at a Harajuku handicraft boutique. When Ruth first opens the diary, she was "expecting to see an age-stained folio, printed in an antique font, so she was entirely unprepared for the adolescent purple handwriting that sprawled across the page" (Ozeki 11). Haruki #1's Japanese war journal is read by Ruth, Nao, and the reader collectively when Nao is given the diary by Jiko. Haruki #1's French war journal is read by Ruth and the reader after Benoit translates it into English. As the reader reads, Ruth reads and writes. As Ruth reads, Oliver listens. As Ruth reads, Nao reads

and writes. Ozeki's formulation of the novel exists as intersecting narratives between Ruth's third-person presumed present, Nao's first-person diary entries, Haruki #1's French and Japanese war journal, email exchanges and dreams, and ecological interludes. The structure of the novel stresses the multi-spatial and multitemporal entanglements of the plot.

This form of reading and writing is substantiated by Ozeki's emphasis on the Zen Buddhist notion of the time being, which comes to describe all forms of being as in time and time as being within the novel. On the first page of her diary, Nao greets the reader: "Hi! My name is Nao, and I am a time being. Do you know what a time being is? Well, if you give me a moment, I will tell you. A time being is someone who lives in time, and that means you, and me, and every one of us who is, or was, or will ever be" (Ozeki 3). A time being, neither human nor nonhuman, transcends notions of identity wherein markers of nationality, race, gender, sexuality, or ethnicity define and delineate personhood. Instead, the time being focuses on how being is constructed through time and how time is constructed by being. Thus, from Ozeki's emphasis of posthuman being and nonteleological time, I draw my *Time Being Ecologies* reading framework.

In recent years, Ozeki's work, particularly *A Tale for the Time Being*, has been taken up in varying capacities within Asian American studies, New Materialist studies, and ecocritical work. *A Tale for the Time Being* has been a seminal text within post-humanist studies through its exploration of nonhuman/human being, the many-worlds theory of quantum mechanics, interactions with the contemporary virtual landscape, and multimodal and nonteleological assessments of temporality. Sue Lowell argues that the novel itself, through praxis-based rhetoric and narrative device, works to push readers to recognize existing posthumanist existences. Posthumanism, drawing from New Materialism, animal studies, ecocriticism, and Science and Technology Studies, challenges normative humanist thought, whose concept of the liberal

individual has pervaded contemporary sociopolitical thought and structures. Further critical study on the novel has engaged with the ecological and environmental assemblages and crises discussed within the novel. Jessica Hurley discusses the entangled histories between the United States and Japan through the post-1945 nuclear age through *A Tale for the Time Being*, positioning the text as a rebuttal of the United States' insistent denial of nuclear complicity. On the British Columbian coast, Petra Fachinger argues that Ozeki assembles a coastal British Columbia created from transtemporal and transnational interaction, advocating for the necessary environmental decolonizing of the space. I will further Lowell, Hurley, and Fachinger's posthumanist and ecological attention to the novel through directly confronting the problem of the "invasive" within the novel and how it pertains to Asian American studies.

As Asian American studies scholars have critically explored the text's Pacific Ocean setting in relationship to ecocriticism and Pacific Islander studies, I will draw from their interdisciplinary readings to situate my Asian American ecologies. Within Michelle Huang's article, "Ecologies of Entanglement in the Great Pacific Garbage Patch", she critically assesses how entangled waste ecologies through the Great Pacific Garbage Patch mirror discursive productions of Asian American racial form. Furthermore, Erin Suzuki in her chapter, "Virtual Ecologies", within her book, *Ocean Passages: Navigating Pacific Islander and Asian American Literature*, discusses *A Tale for the Time Being* alongside Pacific Islander poetry to trace the Pacific Ocean as a significant discursive space in Asian American studies. I will pull from Huang and Suzuki's observations of the Asian American nonhuman space within the novel but expand upon how ecology as a field itself can aid us in understanding invasion and migration within the Asian American context.

My own engagement with the novel attends to the multispecies interactions in and between the locations where the novel is set in Japan, British Columbia, and the Pacific. In doing so, I wish to expand the work of Karen Cardozo and Banu Subramaniam in discerning Asian/American naturecultures, by foregrounding how discussions of invasivity and indigeneity have created the Asian American being throughout time. I will conduct a literary analysis using a "Time Being Ecologies" framework, which centers Ozeki's invocation of the time being.

Towards the Time Being

Through focusing on the time being, I tune into the structural processes that form Asian America through time and space and the object/subject itself. *A Tale for the Time Being* rests on the incredibility that a journal, sent or lost by Nao in Japan could traverse the Pacific Ocean, pass through systems of gyres and garbage patches, and end up on the coast of British Columbia for another Japanese American woman to find and uncover. And, for Ruth, through her dreams, to be able to reach out across the Pacific and find the words written by Nao. There is still much unknown by the end of the novel: where Nao is in the present, how the journal was sent, why Haruki's journals and watch were included in the package, if Ruth ever gets connected to Nao. Significantly, in refusing to wrap up the loose ends of or even definitively end the novel, Ozeki produces a work that expresses the multifaceted futurities that could emerge. Thus, I will dissect the superpositions of time beings within ecologies of entanglement.

Michelle Huang stresses that ecologies of entanglement can be used in Asian American studies to remove focus on the individual Asian American subject and understand the transnational and transcorporeal interactions that produce Asian America. Ozeki introduces quantum mechanics to explore the scientific basis for the multiple worlds which Ruth inhabits to

interact with Nao. Huang invokes this discussion of entanglement alongside Feminist New Materialist thinking to demonstrate how materialities and their discursive existences are created across perceived distances — across an ocean, through material, and through time. Drawing heavily from Karan Barad's agential realism, Huang's definition of entanglement focuses "on the emergence of subjects and objects as effects of epistemological cuts, which shifts the 'object of study' from objects in themselves onto the phenomena that create and bind them" (Huang 98). While I similarly draw from New Materialist thought, I am emphasizing the material alongside the discursive production of materiality.

The object/subject itself, alongside the phenomena that create and bind them to each other, is critical to my attention to the novel. Thus, I emphasize Karen Barad's "agential realist ontology" which advocates for "a causal relationship between specific exclusionary practices embodied as specific material configurations of the world (i.e discursive practices/(con)figurations rather than 'words') and specific material phenomena (i.e relations rather than 'things')" (Barad 132). Barad, further, elaborates that through agential intra-actions, boundaries and distinctions become instated. However, these agential cuts are locally produced rather than ontologically permanent. Phenomena are fabricated through these intra-actions and agential cuts. Following this course of thought, reality is, then, "not composed of things-in-themselves or things-behind-phenomena, but of 'things'-in-phenomena'" (Barad 135). I attend to these things-in-phenomena discussed by Barad through the lens of *natureculture*s, as coined by Donna Haraway and taken up in the Asian American context by Karen Cardozo and Banu Subramaniam. Specifically, Cardozo & Subramaniam enlist naturecultures to define and deconstruct Asian/America as continuously constructed and ontologically evolving.

I attend to these naturecultural "'things'-in-phenomena" which I find are depicted within Ozeki's theoretical and physical time being. Stacy Alaimo, another New Materialist thinker, discusses transcorporeal existences, concerned with the porous interchange between human corporeality and the non-human (or what she calls the "more-than-human"). In doing so, she "opens up an epistemological 'space' that acknowledges the often unpredictable and unwanted actions of human bodies, nonhuman creates, ecological systems, chemical actors, and other actors" (Alaimo 238). The time being, participating, influencing, and created in continual and constant exchanges of matter and energy, is a trans-corporeality — useful in forming both theories and praxes that challenge humanist perspectives. The time being as a definition of both human and nonhuman entities, of the individual and of the collective, and of the local and the global allow us to look within Ozeki's novel to understand how naturecultural interactions and beings construct Asian American spaces.

The time being presents itself prior to the work's textual beginning. The novel's title, *A Tale for the Time Being,* features the phrase, "for the time being" which in colloquial contexts tends to stress linear temporality. Thus, this phrase can be defined, as the Oxford English Dictionary does as "for the present time or period" with the expectation or possibility that the situation could change ("For the Time Being"). Through this understanding, time passively exists, and we move through it chronologically. However, in the novel, we can parse the time being as constructed by both time and being which act upon each other simultaneously. Time is being; being is time; time and being. Time becomes actively created and formulated. The present is not a continuation of the past but can be haunted by and thoroughly enmeshed with the past. The future cannot be seen a teleological certainty of the present, but something consistently created — a presentation of the present. Being, furthermore, refuses to be defined through the

human/nonhuman or living/nonliving. Instead, it refers to acting as things-in-phenomena. Through the form of her novel, Ozeki writes as time being, emphasizing entanglements of corporealities and temporalities. Through this destabilizing of the stable subject and stable time, we can look at invasive ecologies and Asian/America through their transcorporeal and transnational mingling rather than fixating on the stable identities that emerge from their respective subjects — of the definitive Asian American woman or the invasive plant species.

Sense of Being

The time being[4] comes to describe almost everything in the novel — memories, Nao, Ruth, a tree, quantum mechanics. The time being transcends identifiers such as nationality, race, gender, sexuality, disability, and even death. The time being does not assume there is a dialectical unity that can resolve all difference but asserts that every being is commonly created, destroyed, and restored through time, which can create different realities for different entities. The definition of the time being expands as Nao writes and the novel unravels. Jiko, Nao's great great grandmother, responds to Nao's text on how you search for lost time with a poem: *"For the time being, / Words scatter… / Are they fallen leaves?*" (Ozeki 24). In reaction to this text, Nao writes that "it occurred to [her] that the big old tree is a time being, and Jiko is a time being, too" (Ozeki 24). Concurrently, Ruth begins to use Nao's time being terminology and describes the whales in the waters around Whaletown as time beings, memories of the decimation caused by

[4] To discuss the time being without discussing Heidegger's *Being and Time* would be neglectful. However, he will be relegated to a footnote in my interpretation of the time being because Ozeki appears to similarly not regard Heidegger in her construction of the time being. While Heidegger is mentioned within the novel, it only appears in Haruki #1's French diary entry in which he expresses his desire to move away from Heidegger and towards the *Shōbōgenzō* and when Haruki #2 is making origami insects out of his *The Great Minds of Western Philosophy* anthology. As Heidegger specifically isolated insects as precluded from the being he describes, this could be read as a rebuke of Heideggerian philosophy and an insistence on Zen Buddhist configurations of time and being which emphasize the nonhuman in addition to the human.

the whaling industry. Nao continues to redefine and reassess the time being, incorporating "trees, animals, pebbles, mountains, rivers, me and you" which "are all flowing for the time being" (Ozeki 106-107). In doing so, the time being can be applied to all material entities that adapt and change throughout time, including memories and knowledges.

To assess why the time being is important within the novel, we must turn to the Zen Buddhist philosophical foundation that the time being emerges from. The first page of the novel is dedicated to the 11th chapter of the *Shōbōgenzō*:

> "*For the time being, standing on the tallest mountaintop,*
>
> *For the time being, moving on the deepest ocean floor,*
>
> *For the time being, a demon with three heads and eight arms,*
>
> *For the time being, the golden sixteen-foot body of a buddha,*
>
> *For the time being, a monk's staff or a master's fly-swatter,*
>
> *For the time being, a pillar or a lantern,*
>
> *For the time being, any Dick or Jane,*
>
> *For the time being, the entire earth and the boundless sky."* (qtd. in Ozeki 1)

This translation is done by Ruth, herself, and there is a footnote on her decision to translate "*chōsan rishi* — lit. third son of Zhang and fourth son of Li; an idiom meaning 'any other person'" as "any Dick or Jane" (Ozeki 1). Even this translation is a time being, altered by Ruth, to fit a context in which the reader is familiar with the phrase "any Dick or Jane" as expressing the "any person". [5] This poetic from Dōgen affirms the time being is moment, thing, and flow — a lantern, any person, a demon, standing on a mountain, the entire earth. Dōgen, further,

[5] Dick and Jane refers to, I presume, the reading primer series from the mid-20th century which centered a white middle-class family. It is interesting of Ozeki to refer to Dick or Jane in this translation as it presumes this form of middle-class, white Americana as the translation of "any other person", which perhaps says something about the constant construction of this "normal" or "middle of the road" group.

elaborates that "*Time itself is being… and all being is time… In essence, everything in the entire universe is intimately linked with each other as moments in time, continuous and separate*" (qtd. in Ozeki 30). Everything — all time beings — are marked by their movement through time, and reformation as time goes on.

But more so, the distinctions between time beings are porous barriers through which we bleed onto and through. There is no concretely defined inner or outer self or other in the time being framework. Anecdotally, Nao recollects that through sitting zazen, she learned to focus so intently as to not swat at the mosquitos around her. Through practice, she began to become immune to the mosquito bites and "soon there was no difference between me and the mosquitoes. My skin was no longer a wall that separated us, and my blood was their blood" (Ozeki 204). Through zazen, Nao rejects the construction of skin as a barrier, susceptible to invasion and attack by mosquitos and the outside world. Instead, our skin and our blood, what makes up our "physical being", are not even our own but shared by the mosquitoes and the bees and the wind and the rocks and each other. In the sexual assault she experiences later, her bloodied panties are taken by her bullies — her blood is once again their blood. Thus, in a disturbing sense, while this instance also is a permeation of inner/outer divides, it demonstrates the violence that time beings can inflict upon one another. We are bruised, altered, and born through our interactions with other time beings moving through moments in time.

Sense of Time

To focus on the temporal orientation of the novel, I will look to Zen Buddhism and the invocation of ghosts to argue that the novel understands time as not linear but an interlocution of temporalities. I find the temporal scale useful because it reminds us that discourses on invasive

species and Asian America are produced through the interlocking of past practices, present circumstance, and envisioned futures. I will further engrain this conversation on time with a discussion of temporal scales as drawn from disturbance ecology and adaptive cycling. Through this interdisciplinary conversation on time, I hope to substantiate the time being as critically engaged with differing temporal scales.

The Zen Buddhist construction of time emphasizes the different scales through which time moves and change can occur. On the cover page for Part III, Ozeki refers to a quote from Dōgen Zenji which explains how time is perceived within the novel:

> "*Do not think that time simply flies away... If time simply flew away, a separation would exist between you and time. So if you understand time as only passing, then you do not understand the time being. / To grasp this truly, every being that exists in the entire world is linked together as moments in time, and at the same time they exist as individual moments of time. Because all moments are the time being, they are your time being*" (Ozeki 259)

In considering time as these miniscule moments which link being and exist as being, Zen Buddhism understands every moment as a moment of potential change and opportunity. Relating this temporality to Asian American ecological assemblages, we can observe how granular moments are constantly constructing these ecologies on differing temporal scales. While a forest canopy may seem as ancient as time itself, miniscule changes in soil acidity, climate, and the invasion of herbaceous cover by foreign plants can result in an entirely different forest in the span of many millennia. Time, itself, is a being in the construction of this forest. While the forest on the macro-level requires many of these moments to completely alter, the micro-scalar relationships in the humus between decomposing bacteria could change within days. In the same manner, it is this interlocking and entanglement of temporal interactions moment by moment that

shape and alter Asian American ecologies. Through the displacement of beings from war and colonialism[6], the slow drift of nuclear material through the Pacific, or an individual flying from the China to the U.S. to begin a college education, these interactions, even at varying temporal scales, adjust ideas of Asian America.

To zoom out to the structural level, we can supplement the Zen Buddhist understanding of time with ecological systems theory that illustrates how systems change through time as disturbance and reorganization occurs. The adaptive cycle (see Fig. 1) consists of four phases: the exploitation phase, energy conservation phase, the release or collapse phase, and the reorganization phase. The exploitation phase is characterized by the rapid organization of a system. In this phase, the system is accumulating and beginning to stabilize. Following this is the conservation phase in which the system is stable, relatively inflexible, and productive. While the system in this phase is well-managed, it is less adaptive to disturbances because of the structural rigidity. Following a significant disturbance event, the release phase occurs wherein the as-is system collapses. After the release phase, the system reorganizes, readjusting into a rendition of a prior state or an entirely different alternative state. The adaptive cycle is depicted as a figure-eight (see Fig. 1), emphasizing the never-ending flow of these four stages. Through the adaptive cycle framework, the constant shuffling of a system is emphasized but also how change filters through moments of stability. In both the Zen Buddhist and systems ecology, there is a nonlinear assessment of temporality and a focus on how these linked moments and time beings result in the development, collapse, and reorganization of larger collectives. Thus, in regard to the novel and time being ecologies, adaptive cycles assess how disturbance, migration and destruction contributes to and reshapes these naturecultural landscapes in an everlasting manner.

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[6] Such as from the Korean War, War in Vietnam, U.S. colonization of The Philippines, Communist Revolution in China, Partition in India, and the list goes on.

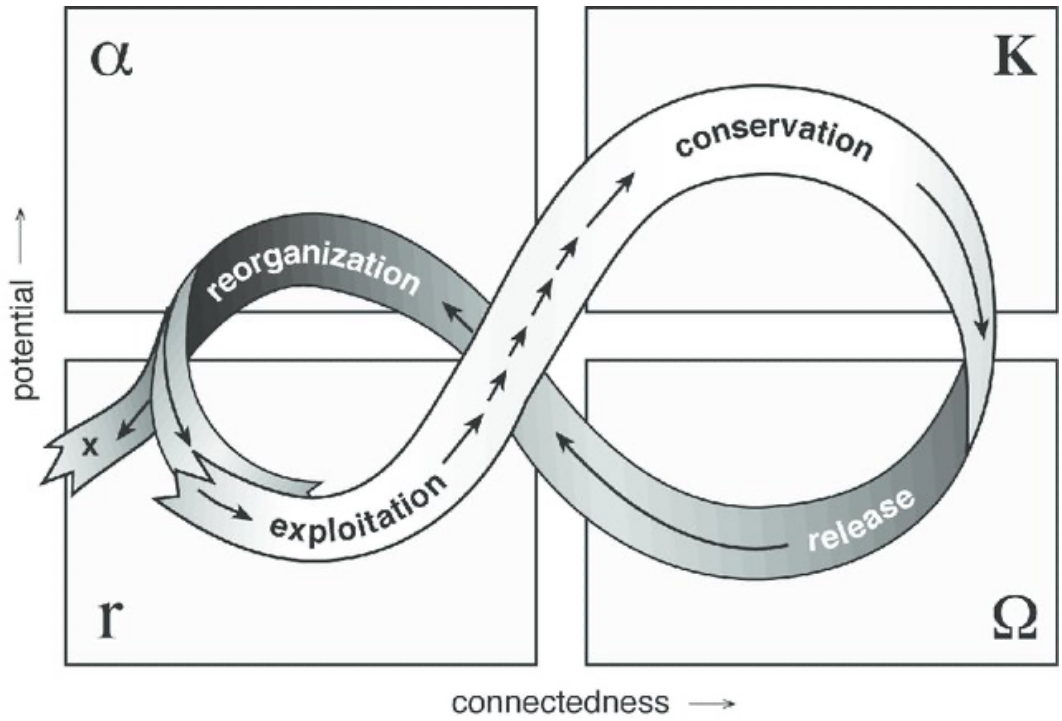

Figure 1: The adaptive cycle (from Panarchy, edited by Lance H. Gunderson and C.S. Holling: Figure 2-1(page 34). Copyright © 2002 Island Press

Furthermore, no matter ever completely disappears from an ecological system and no ecological system completely disintegrates, as shown by the adaptive cycle. When beings die, they are decomposed and reabsorbed through the trophic levels. Even if a creek sweeps decaying matter and sediment downstream, traces will always remain and traces will permeate novel ecosystems. Thus, material remains as a specter of previous iterations of community compositions and geologic formations. Through ghosts — physical incarnations of what is dead or consolidated as spirit — we can assess how the time is constantly haunted by the past and future and how being is constantly constituted through time. Pheng Cheah, notably, takes up Jacques Derrida's hauntology to consider the postcolonial nation and state which "must be seen as a specter of global capital (double genitive)" (Cheah 395). In applying Cheah's postcolonial hauntology to the novel, we see that those imprints of global capitalism, settler colonialism, and

war, remain embedded in the earthly and organismal flesh across spatial scales. For Derrida and Cheah, the specter is mystical, but it is not only a spiritualization, it is infused within flesh. In other words, the specter does not die but lives on within the constant deferral and reconstruction of it in the present. Thus, there is a constant reshuffling and interlocking of past, present and future — "spectrality disjoins the present [and] it also renews the present in the same movement...But it is precisely the rending of time that allows the new to emerge and rejuvenate the present it by giving it the promise of a future" (Cheah 389). The specter not only reminds us that the past is constantly redetermined and entrenched in the present but urges us to consider futurities that reconstruct and deconstruct our past-presents.

Literal ghosts and figurative specters within the novel act as screens through which characters reflect on their own present being. To see ghosts or monsters in Nao's Japan is to see an ever-living reminder of the past. Obon, which Nao calls the summer vacation for spirits to the land of the living, is celebrated by Nao, Jiko, Muji and temple guests. During which, Nao remarks that during August, "the whole round world [was] pregnant with ghosts, and at any moment the dead will burst through the invisible membrane that separates them from us" (Ozeki 209). Through this understanding, these ghostly encounters are legitimate and formative moments of ancestral connection, self-reflection, and confronting tormented ghosts. Spirits and specters fall within Ozeki's definition of a time being and must be assessed accordingly. In understanding Ozeki's attachment to the ghostly and what is perceived to have passed on, we ensure a construction of Asian American ecologies that considers how the pasts continue to seep onto the present and future renditions. Our interdisciplinary accounting for time that intermeshes Zen Buddhism, structural ecology, and ghosts encourages ideologies that express cross-discipline similarities and the possibilities of engaging with multimodal formulations of time.

A Time Being Ecologies

Thus, just as Ruth reads Nao's journal and speculatively, exploratorily and physically modifies the words Nao originally writes, a *Time Being Ecologies* framework moves outside the novel through space and time to unravel these ecological connections that create the Asian America within Ozeki's novel. I turn to Candace Fujikane's assertion of cartographies of abundance and settler aloha ʻāina praxis to imagine sustainable futurities that pushes past settler colonial understandings of place while acknowledging migration as constant and space as dynamic. Fujikane draws from David Lloyd's call to recognize abundance as "the end of capital… the alibi of capital of scarcity; its myth is that of a primordial scarcity overcome only by labor regulated and disciplined by the private ownership of the means of production" (qtd in Fujikane 4). To focus on abundance is to move towards possibility beyond an imagined scarcity that becomes realized in the alienation from our surroundings, our land, and our communities. Fujikane's consideration of her own being as a "Japanese settler aloha ʻāina" acknowledges how Asian American time beings act as settlers on occupied and stolen lands, who wield economic and cultural power through taking up American models of capitalist domesticity. In this formation of identity, we acknowledge the histories, specters, and presences of settler colonialism upon the Asian American and the American space. Fujikane invokes the "aloha ʻāina" (or ally) to "encompass' the *imaginative possibilities* for our collaborative work on ea[7] and a land-based lāhui[8]" (Fujikane 14). Time being ecologies look towards mapping abundance

[7] A word "likened to the birth of the living land itself" which describes emergence and constant becoming (Fujikane 10).
[8] A word meaning the large gathering of people ("Lāhui")

and possibility, as located within dense complex histories, to understand how Asian America is constructed and can continue to form.

Time being ecologies do not center the nonhuman or the human, the native or the invasive, the pelagic or the terrestrial. Instead, time being ecologies parse out a history, a present, and a futurity which produce the interconnected and continuously mutable fragments that construct Asian America and beyond. They stress futurities that do not harken back to a past that precludes migration or disturbance but advocate for adaptable, place-based knowledges, reimagining how naturecultures can begin to define our futures rather than act as a hallmark of natural resilience within the destruction of the Anthropogenic era.

Chapter 2: Time Being Ecologies

British Columbia Ecologies

Despite being heavily considered as an Asian American novel, a main setting of A Tale for the Time Being is in Ruth and Oliver's home on Cortes Island off the mainland of British Columbia. Ozeki offers a portrait of Asian America that is not enclosed by the mapped outline of the United States. Ruth's relocation to Canada as an Asian American woman traces how Asian American populations move beyond the nation, refuting the stability of the Asian American polity and subject. Furthermore, British Columbia retains histories of settler colonialism, the dispossession, genocide, and forced migration of First Nations populations, and Asian migration that remain pertinent to Asian American naturecultures. For one, Cortes Island is named after the Spanish conquistador, Hernán Cortés, who conquered the Aztec and claimed Mexico for Spain (Ozeki 141). As Ozeki continues to explain, "the island had a nickname, too, a shadow name that was rarely spoken: the Island of the Dead" (Ozeki 142). This moniker is tenuously connected to intertribal violence, the 1862 smallpox epidemic which decimated the Coastal Salish peoples that originally populated the island, tribal burial grounds, and the contemporary considerable population of white retirees on the island. Through an exploration of Ruth and Oliver's interactions with the Cortes Island forests and intertidal ecosystems, I build Asian American (and Canadian) time being ecologies focusing upon the historical imprints of indigenous, settler, and alien naturecultures upon the landscapes.

Forest Ecologies

Through a time being ecologies of the forests surrounding Ruth and Oliver's home and Oliver's ecological art projects, we see these forests as the dynamic production between human and nonhumans on differing temporal and spatial scales. To us, forests seem like prehuman and

posthuman landscapes of the unknown, set within a time that moves much slower than ours does. When we think of the sequoia redwoods of the California coast or the ancient sugi on Yakushima Island in Japan, having lived multiple millennia with the rise and fall of Ancient Rome and the industrial revolution imprinted on just a couple of thousands of rings, it is hard to imagine them as dynamic. We are shocked when invasive species change and disturb forest compositions or fires destroy what we could not. However, in how Ozeki describes the forests that surround Ruth and Oliver's home and Oliver's "interspecies" hacking and terrestrial manipulation, forests are not stationary landscapes for human utilization but involved in their own complex continual reconstructions with the humans and nonhumans that create and live within them.

In how Cortes Island is described by Ruth, the forests are understood as deep recesses that are beyond the human degradation that has plagued the remainder of the planet. When Ruth first arrives in Whaletown, she describes the surrounding of her new home; "On all sides, massive Douglas firs, red cedars, and bigleaf maples surrounded them, dwarfing everything human. When Ruth first saw these giant trees, she wept. They rose up around her, ancient time beings…" (Ozeki 59). The forests of Cortes Island transcend human temporal scales. These centuries-old time beings outlive the migrations of Europeans to these shores, of the construction of Jap Ranch, and of Ruth and Oliver's move to British Columbia. Through European ecological colonialism, these trees persist. But forests, in actuality, consist of scalar interactions between thousand-year-old trees, logged areas, banana slugs, mosses and lichens, black bears, and humans.

The forests of Cortes Island have endured a history of logging and human interaction through the precolonial and colonial periods. These forests have been intimately shaped by relationships with the Coastal Salish peoples who live among them. Shell-middens — ancient

trash heaps — were found to affect the plants found near habitation sites through increasing the presence of culturally significant species (Fisher et al. 2019). Anthropogenic fires in the island's forests increased the success of the Western red cedar, a natureculturally significant tree species, and created open habitats which are associated with increased food abundance[9]. Yet, the forests of Cortes Island also cannot be removed from the legacy of settler colonialism on the Western Canadian shore. The first European settlers arrived in 1886 and by the 1920s, there were 120 families on the island engaging in industrial logging or clearcutting the land for agricultural purposes (Moore 2022). The contemporary preservation and restoration of the Cortes Island forests have been championed by residents and indigenous groups. The forests of Cortes Island are intimately intertwined with the humans who have settled within its cedars and firs.

Ruth and Oliver, themselves, do not simply live unobtrusively within the forest but familiarize the spaces around their home with horticultural, potentially "invasive" plants. They plant European climbing roses and bamboo "in a futile attempt to domesticate the landscape" (Ozeki 61). [10] The distribution and planting of non-indigenous rose species occurred through desires to cultivate the North American landscape into a space of familiarity, just as Ruth and Oliver wish to do in their new home. While there is no rose species that is a prioritized invasive species in British Columbia, multiflora rose (*Rosa multiflora*), which can be found throughout North America, is an infamous "invader" of natural habitats. [11] It was introduced and widely planted from the 1940s to the 1960s in the Eastern U.S. for erosion control, as natural fencing, and to feed wildlife (Amrine 2002). However, in the 1980s and 1990s, the multiflora rose was

[9] The felling of cedars for infrastructure and cultural uses may have also created gaps in these forests, increasing light penetration, allowing for understory development, and helping to generate the multi-layered structure of old-growth forests.
[10] There are species of bamboo that are native to North America but Asiatic species are the most commonly exported and sold horticulturally (Canavan et al. 2016)
[11] *Rosa multiflora* is native to Japan not Europe but remains an example of the discourse surrounding invasive roses.

labeled as a "noxious weed" and vilified for its invasion of pastures, roadsides, and "natural" forest and swamp edges, where it forms dense thickets and establishes large seed banks. The dedication to the "invasive" moniker for roses such as *Rosa multiflora* takes on different delineations depending on its presence in "domestic" and "wild" settings. Domestic spaces, like Ruth and Oliver's home garden, can be modified but the wilderness just beyond these gardens should remain untouched. However, the wilderness and the plants within it have never been truly isolated from human interference. Outside of the British Columbian garden, wild roses, specifically the Nootka rose (*Rosa nutkana*), are dominant understory shrubs in forests and were foraged by the Coastal Salish peoples throughout the year.[12] Even "wild" roses have continuously undergone interactions with human communities.

The planting of bamboo demonstrates there is an emphasis placed upon "invasion" which is predicated on the alien-ness of the species. Bamboos are continuously planted throughout North America in domesticated garden spaces as desirable horticultural "natural" fencing or as an aesthetic living object.[13] Canavan et al. (2016) found that most introduced bamboos are from Asia and all bamboos considered invasive are native to Asia. Furthermore, bamboos are inherently tied to Oriental depictions and understandings of the Far East. Even within the Canavan et al. (2016) study, they claim that "in China, bamboo has been widely used for millennia… [bamboos] have shaped the history of this region…this would have profoundly influenced the way bamboos from this region have been distributed to other parts of the world" (Canavan et al. 2016). The widespread distribution of Asian bamboos is linked to a tenuous

[12] Rose hips were eaten raw in the fall. In the spring, young shoots were eaten. Rose roots are peeled and boiled to make reef nets with cedar roots (Turner & Bell 1971). Multiflora rose hips can also be eaten raw or steeped to make rose tea ("Multiflora Rose, an Invasive but Nutritious Wild Edible").

[13] Bamboo is additionally interesting because it has been further introduced to locations because of its breath of uses beyond the aesthetic; its culm can be used for biomass, construction, textiles and more, the leaves for fodder, the shoots for human diets (Canavan et al. 2016).

history between the West and the ornamentalist desire for "goods" from the Far East. [14] Ornamentalism is a critical intervention made by Anne Anlin Cheng in which she suggests that the "yellow woman" becomes racialized through the aesthetic and synthetic, wherein Asiatic femininity is positioned as starkly between ontology and object-ness. In viewing bamboo as an ornamentalism (Cheng), I suggest that the Asiatic nonhuman flora and fauna are additionally precariously viewed between object/being. Through the intricate cultivation and distribution of Asiatic plants for ornamental purposes, these plants are seen more as object than as organic matter, capable of growth and reproduction. Through this discursive formation, these species become more readily "invasive" and "alien" because they cannot be understood as ornament once they transcend domestic spaces and enter "wilderness". In Oliver and Ruth's home garden, the confines of their personal property, the planting of these ornamental invasive species is permissible as they can be controlled and managed for aesthetic and personal value. However, when a species becomes unmanageable in public "wilderness", it is termed invasive.

The association of East Asian plants with ornament coincides with a more violent history surrounding the alienization of East Asian populations within the U.S. and Canada. It is rather significant that Ruth finds the journal written by Nao on Jap Ranch[15], which is a space so

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[14] Bamboo species can be found throughout the world. Muscogee peoples from what is now Georgia have used river cane (*Arundinaria gigantea*) for homes, nets, and baskets (Bacallao 2020). *Guadua angustifolia* and *Chusquea species* were commonly used throughout South American indigenous societies for construction and crafts ("Bamboo of South America: Ornamental and Economic Species")

[15] "Jap Ranch" was owned by Yaichi Nakatsui who migrated to Canada in the late 19th century and found employment with Japanese horse loggers on Cortes Island (Manson 2021). Nakatsui, recalled in fond memories by Cortes Island residents and their ancestors, would be unable to avoid the national internment of Canadian Americans. When Pearl Harbor was attacked, the Canadian Government issued a decree calling for the removal of all persons of Japanese origin. Over 21, 000 Japanese Canadians would be removed from the British Columbia coast to internment camps in the interior (Manson 2021). June Cameron recalled "how impressed she was with the neatness and beauty of the [homestead]… the well-pruned fruit trees and a lovely grape arbour, and the outhouse, a communal affair where people could sit side by side, a concept that she was not aware existed in the world" (Manson 2021). The Nakatsui Ranch would be sold without permission by the Canadian government to support Canadian war veterans and Yaichi Nakatsui would commit suicide while admitted to Pronvicial Mental Hospital. From these sketches of Nakatsui's life, we can ascertain that even with his integration into the Cortes Island community, larger understandings of alien-ness precluded him from truly becoming a Cortes resident or a Canadian.

intimately linked with the events at Pearl Harbor and the ensuing Japanese American and Japanese Canadian internment. In situating the story as such, Ozeki emphasizes those intricately layered Japanese /American/Canadian temporalities — of the "return" of Nao to Japan and "Nao's" journal to the North American Pacific shore; of Ruth's, whose mother's family was interned in the States, migration to Cortes Island wherein "Jap Ranch" looms largely; and thus, of the waves of Japanese migration to and exile from the Canadian shores.

Furthermore, the racialization of Japanese Canadians as inherently alien still permeates into understandings of Japanese bodies and plants. Callie jokes in the novel about "invasive species. Exotics. Black slugs,[16] Scotch broom,[17] Himalayan blackberries[18]" remarking that they shouldn't "be surprised if our island xenophobes storm this place, armed with nets and kerosene torches" to capture the Japanese Jungle Crow (Ozeki 120). The language of her statement eerily resembles tactics used in the Western U.S. and Canada to run Chinese and Japanese communities out of towns. In July of 1907, the Asiatic Exclusion League of Vancouver roused a mob, driven by the fear of the threat of Japanese immigrants to white workers, which marched through Vancouver's Chinatown, inflicting destruction on most households, setting fire to the Japanese-language school, and driving Chinatown residents out of the city (Lee 129). "Jap Ranch" still stands on Cortes as a reminder and premonition of these violent reconfigurations of Canadian-ness and foreign-ness during World War II and today. Jap Ranch acts as a persistent Japanese specter on Cortes Island — a haunting that has become part of the island as well as alien to it.

Of the 23,000 Japanese residents in Canada at the time, 95 percent lived in British Columbia. 22,000 of these residents were ordered to leave British Columbia and sent to "Interior Housing Centres" in ghost towns and farms in the interior — far from any Canada they ever knew (Lee 212).

[16] Native to Europe.

[17] Native to Western and Central Europe

[18] Native to Armenia and North Iran

However, through Oliver's "interspecies hacking" and Neo-Eocene forest project, Ozeki imagines futurities that think through and beyond the imprinting of nationality and temporality onto flesh, both human and nonhuman. Oliver, an environmental artist, in his current Neo-Eocene forest project, looks toward to the effects of global warming on trees through moving backwards to the "ancient native" trees that were indigenous over 55 million years ago. For the project, Oliver plants "groves of ancient natives —metasequoia, giant sequoia, coast redwoods, *Juglans,*[19] *Ulmus*,[20] and ginkgo" (Ozeki 60). The contemporary composition of the British Columbia coastal temperate rainforests are mainly Western red-cedar, Western hemlock, Douglas-fir, and Sitka spruce. Thus, none of Oliver's tree species remain "native" to these lands. Oliver, through this project, undermines the understanding of the forest as stable throughout time. In turning to the Eocene, the warmest time interval since the Early Triassic where little to no ice could be found on Earth ("Eocene"),[21] Oliver imagines and warns of a world where the ice caps have melted, temperatures have risen, and different iterations of life take hold of British Columbia. Oliver's forest envisions futures that combine our presents with our ancient pasts, reminding us that climate change while critically amplified by anthropogenic greenhouse gas releases is not a novel phenomenon.

These Eocene trees have not disappeared from the planet but instead exist in different conglomerations and ecologies. Metasequoia are now solely found in the Hubei province of China but petrified trunks and fossils can be found from North Dakota to Axel Heiberg Island, a Canadian island within the Arctic Circle ("Metasequoia"). Giant sequoias are famously found

[19] Walnut genus
[20] Elm genus
[21] The beginning of the Eocene age is marked by a large release of greenhouse gases, such as methane and carbon dioxide, which is linked to the warming climate and sea level rise during the period. The end of the Eocene age is marked by massive carbon sequestration mostly occurring in the burial of carbon as coal and crude oil below the Arctic Ocean.

throughout California but, prior to the last ice age, giant sequoias could be found widely throughout North American and European coniferous forests ("Metasequoia"). Ginkgoes once could be found throughout the world however, its "native" range now is relegated to the Zhejiang province in eastern China ("Ginkgo"). [22] However, it has been cultivated and planted in ornamental settings for over a millennium in China and for centuries in North America and Europe ("Ginkgo"). All these trees, selected by Oliver, represent global and trans-historic movement and the constant reshuffling of what we consider "indigenous".

Oliver's botanical hobbies of interspecies hacking and grafting are transnational and transoceanic nonhuman interactions that do not depend on invasive/naturalized categorization. For Oliver, his "interspecies hacking" deepens his relationship with nature rather than removes him from it. His delicate handling of his *Euphorbia obesa* and whip grafting of fruit trees refutes agricultural genetic modification as solely a methodology for increasing crop-yields, economic agricultural gains and poisoning humans (Ozeki 296).[23] Oliver takes the hawthorn root stock he takes from the Driftless region in Wisconsin and grafts a medlar to it. [24] There are seventeen species of hawthorn that are native to the Driftless area. [25] The medlar is in the same genus (*Crataegus*) but is native to Europe. The graft, in which he takes a European *Crataegus* and joins it to an American *Crataegus*, reassembles this disjointed genus. Grafting has been used for centuries to improve fruit, vegetable, and horticultural plant production and growth. [26] Oliver's

[22] They are considered living fossils as the modern ginkgo is remarkably similar to fossils from over 290 million years ago (Ozeki 312).
[23] Ozeki, herself, wrote on GMOs and their impact on farming in *All Over Creation*.
[24] The Driftless in Wisconsin is unique because it is the only space in the area that was not covered by ice in the last ice age. It thus lacks "drift" which are glacial deposits, so it has steep hills and forested ridges and karst geologies. The ecologies of the Driftless are closer to the Great Lakes and New England than of the Midwest and central Plains.
[25] The hawthorns are trees and shrubs with fruits akin to small apples.
[26] Oliver stumbles upon the hawthorn-medlar graft in reading *Certaine Experiments Concerning Fish and Fruite*, a "book of that gentleman's observations of fishponds and fruit trees" published in London in 1600 (Ozeki 297).

"interspecies hacking" work reminds us that the plants, themselves, that we consider "native" or "nonnative" are the products of these multi-century, transnational endeavors by botanists.

In the backlash Oliver receives regarding his project, the complicated reconciliations of settler colonialism with protecting indigenous peoples and ecosystems emerge. Oliver continues to face public and legal resistance to his project over the potentially invasive nature of his ancient natives. In the aftermath of the forest clearcut, the site was placed under a covenant enforcing native replantings. Oliver's trees were deemed exotic and thusly in violation of the covenant. But Oliver argues that "given the rapid onset of climate change, we need to radically redefine the term *native* and expand it to include formerly, and even prehistorically, native species" (Ozeki 120). On one hand, the arrival of the European settler created landscapes of ecological imperialism — spaces in which the forest stewarded by the Coastal Salish were clear-cut and settlements and agricultural spaces were established in their wake. On the other, our climate is rapidly shifting (and has been changing for many millennia) and we cannot cling onto ideas of native-to-place which may limit our abilities to account for the changes. We must not assume that there is, or will ever be, a stable state that can be returned to. For instance, the European climbing roses and bamboo planted in the front of Ruth and Oliver's home, cultivated in the presence of each other, grow "into a densely tangled thicket, so that soon it was almost impossible to find the entrance of the house… the house seemed in danger of disappearing" (Ozeki 61). Just outside the house is a "meadowlike clearing that had been hacked from the middle of the dense temperate rain forest". Where Ruth lives — in this home, in the mass of roses and bamboo, in the temperate rainforest, on Cortes Island — these time being ecologies are being constructed over various temporal and spatial scales from geologic ages to Oliver's day-to-day grafting successes and from Ruth and Oliver's not-so-little forest all the way to Japan. Thus,

we must understand that stewardship of forests and other spaces requires listening and observing those spaces and ourselves through time and being.

Intertidal Ecologies:

The intertidal contains the deposits of oceanic drift, of the things, barnacles, and plants lost and then found again; the tide is the original invader of the terrestrial nation. Funnily enough, the intertidal zone is where Ruth finds Nao's journal as well. To discuss the intertidal zone expands our understanding of the nation, oft consigned to within a terrestrial land mass. Turning to the intertidal zones, I wish to build upon the forest ecologies by discussing a different sort of borderlands (between aquatic and terrestrial communities), engaging with indigenous and nonindigenous practices of cultivation along the coastline, and discussing the intricate relationships between British Columbia and the Pacific oyster, originally from Miyagi Prefecture in Japan. While borderlands history often engages with encounters and spaces wherein people of different cultures or ethnicities become entangled, Gloria Anzaldua, who can be accredited with borderlands theory,[27] opens a dialogue that engages the people who live within or throughout these borderlands. Understandably, Asian American studies does not often directly engage with borderlands theory as the Pacific buffers the American coast from the Asian coast. However, many scholars have begun to work with the space of the Pacific which could constitute as its own sort of borderland. Further, I contest that when we look at the intertidal through the Pacific oyster and of the Japanese Canadians who lived on British Columbian islands as loggers, we find

[27] Gloria Anzaldua, states in her seminal work, *Borderlands / La Frontera: The New Mestiza*, describes the borderland as "a vague and undetermined place created by the emotional residue of an unnatural boundary. It is in a constant state of transition. The prohibited and the forbidden are its inhabitants" (Anzaldua 3). Unlike Anzaldua's borderland, I argue that these are not necessarily unnatural boundaries but are more importantly spaces that are at the forefront of change and interaction.

a geography of Asian American borderlands, where belonging and national place are constantly being reconstituted. Thus, we arrive both a physical Asian American borderland in what washes ashore and the expansive metaphysical borderlands where no definitive boundary exists but the "emotional residue" of national delineations persist.

The characteristics of the intertidal zone provide an apt metaphor for the harshness, acclimatization, and resilience associated with life in these borderlands. Indeed, Anzaldua, herself, notes the clashing of the ocean and the land as a borderland. On the first page of *Borderlands/La Frontera: The New Mestiza*, there is a poem that states "I stand at the edge where earth touches ocean / where the two overlap / a gentle coming together / at other time and places a violent clash" (Anzaldua 1). She begins her foundational borderlands study at the intertidal zone by taking note of this space where the ocean and earth overlap in both violent and gentle ways. On a sandy beach, the tide laps gently upon the shore and ocean water is absorbed within sand grains providing a softer gradient of conditions. However, on the rocky shores, much like we would find on Cortes Island, these areas range from entirely submerged to completely exposed. Thus, in the ecological sense, intertidal zones are considered some of the harshest environments as the species that live within them must be salt-water tolerant, capable of weathering daily drying from open exposure and the mechanical forces of waves, debris, and sediment movement. In thriving and surviving in the meeting place of the ocean and the land, intertidal borderland inhabitants reckon with the differing conditions of both environments, akin to the rough or gentle meshing that occurs as peoples and things have traversed the Pacific.

To consider the ecologies of the intertidal, we must also think about the human traces that endure upon it as well. Muriel's assortment of beach finds range across space and time:

> Bone fish hooks and lures, flint spearheads and arrowheads, an assortment of stone tools for pounding and cutting. Most were First Nations artifacts, but she also had a collection of old Japanese fishing floats that had detached from nets across the Pacific and washed up on the island's shore" (Ozeki 33).

On one hand, the First Nations findings remind us of the pre-colonial presence of indigenous peoples along the Pacific Northwest coast, of the established networks between societies that would result in this mix of sea, hunting, and preparing tools along the Cortes Island shore. Their positioning in the intertidal zone, in this borderland, reminds us that indigenous populations were not erased by colonial settlers and European diseases but hybridized and survived through encounters with non-indigenous trading networks, settler communities, and novel technologies and ideologies. Thus, while these artifacts serve as specters of the colonial encounter, permeations of the past that persist, they also ground us in the persistence of indigenous presences and influences on the coast.

Muriel's collection of Japanese fishing floats alludes to the pre-European interactions between Japan and the Canadian shore. The Kuroshio, a current which moves upward from Taiwan, fueled by warm waters, around the North Pacific and down the Canadian coast, has sent drifting Japanese ships and flotsam across the Pacific for centuries (Ebbesmeyer and Scigliano).[28] Artifacts, goods, and persons trapped on these lost ships were deposited along the American coast. Archaeological digs have found iron, arrowheads made from Asian pottery, and Japanese pottery shards from British Columbia to Ecuador (Ebbesmeyer and Scigliano). Oral histories tell of rescued Japanese seapeople marrying into the Hawaiian royal families and Hawaiian legend cites that the Polynesian settlers found menehune ("little people") already upon the islands

[28] George Quimby, an anthropologist at University of Washington, estimated that from 500-1750CE, around 187 ships were carried by the Kuroshio from Japan to the American coast.

(Ebbesmeyer and Scigliano). This history rejects notions that indigenous communities existed in isolation prior to European encounters, that the Pacific was an untraversable space, or that migration is solely a human-driven movement. We must keep in mind that in these past few centuries in our postcolonial and postindustrial world that these mechanisms of movement across the Pacific have rapidly amplified. But still, Muriel's discovered remnants of Japanese fishing floats, which remind Ruth of "escaped worlds", evoke memories of encounters we may never uncover and certify that global movement is not unnatural or unheard of in the history of the transpacific.

The sea heaves up non-collector items (i.e. garbage) onto these intertidal shores as well, speaking to a present history of drifting materials, swept up by the ocean and deposited again on another shore. When Ruth finds Nao's journal washed ashore, she firstly mistakes it for "the sheen of a dying jellyfish…[because] the beaches were overrun with jellyfish these days, the monstrous red stinging kind that looked like wounds along the shoreline" and then "something plastic, a bag, Not surprising… someone's garbage, no doubt, tossed overboard or left behind after a picnic or a rave. The sea was always heaving things up and hurling them back: fishing lines, float, beer cans, plastic toys, tampons, Nike sneakers" (Ozeki 8). Her initial associations linking Nao's journal to a dead jellyfish[29] and garbage should be considered ecological observations of Cortes Island intertidal ecosystems. Dead jellyfish are as common as Nike sneakers. Arrowheads are found alongside beer cans. Intertidal ecosystems, even on lesser-developed coastlines like Cortes Island, are now marked by these assemblages of abiotic and biotic, human and nonhuman, native and nonnative.

[29] Most likely a Lion's Mane Jellyfish (*Cyanea capillata*)

The garbage gargled upon the Cortes Island shores, referred to as a "plastic litany… *the things that have been forgotten, not remembered*" by Michelle Huang, offers a contemporary rendition of the historic artifacts found by Muriel. Akin to the First Nations arrowheads and Japanese fishing floats, these bits of debris signal transnational linkages fostered by ocean currents and eroded by the encounter with the coast. The beer cans and plastic toys do not disintegrate at the "end of the foodwebs" but permeate ocean ecologies. Microplastics have been found embedded in every facet of our biotic existence. The Nike sneakers — designed in New York City, the cotton grown in Vietnam, the rubber harvested in the Congo, manufactured in China, sold in Mexico, and disintegrating on the shores of British Columbia — become the displeasing specter of our international existences. Alternatively, when in conversation with the Japanese fishing floats and First Nations artifacts, the Nike sneakers appear more so as an accelerated continuation of existing transpacific waste ecologies and abiotic migration. When thinking about the debris put into oceanic drift by the 2011 Great Eastern Japan earthquake, tsunami, and nuclear meltdown, we can understand these events and the ensuing fallout as dually a reckoning of human and natural disaster and of chance and drift.

From Ruth's observations of the jellyfish on the coast, the jellyfish acts as a living specimen of transpacific drift, troubling national distinctions we ascribe. The jellyfish are considered "native" to British Columbia but spend most of their lifecycle throughout the northern Pacific, pulsing along the ocean currents (Smart 2013). For a creature whose primary residence is an ocean current, it seems odd to enshrine a nationality upon it. Jellyfish, themselves, are oft disregarded by the ecological research community as "a dead end in the food web – sacs of salty water that provide almost no nutrients for predators" (Hamilton 2016). But recent research by Andrew Sweetman on 'jelly falls' which occur when a jellyfish bloom crashes

and dead jellies sink to the seafloor found that scavengers rapidly consume these jellies, increasing the amount of nitrogen that reaches the fjord bottom by around 160%, increasing limiting nutrient access in ocean ecosystems (Hamilton 2016). I speculate that, similarly, the nutrients from jellyfish that are hauled onto the beach are scavenged and absorbed into inshore terrestrial ecosystems. In this sense, jellyfish — both alive and decayed — are more so a transpacific organism than native to any coast.

The gooseneck barnacles found encasing the Ziplock bag where Ruth found Nao's journal further trouble these national and native distinctions. Callie, Cortes Island's resident marine biologist, uses the barnacles to date the journal, determining that the colony (and the journal) would have been floating around for upwards of 3-4 years. However, in her description of the barnacles, which she states are *Pollicepes polymerus*, she confuses the characteristics of the barnacles with two other species (Ozeki 115). There are three focal species of gooseneck barnacles: the pelagic gooseneck barnacle (*Lepas anatifera*) and the two intertidal gooseneck barnacles, which share a common name (*Pollicipes pollicipes,* found in the northeast Atlantic Ocean, and *Pollicipes polymerus*, found on the North American Pacific coast). Callie describes the barnacles as "*Pollicepes polymerus*. Order Pedunculata. A gregarious pelagic species, not really native, but it's not uncommon to find them on tidewrack that's drifted in from farther out at sea" but later on states that "they prefer more exposed shorelines" and "they're a great delicacy in Spain" (Ozeki 115, 118, 119). "A gregarious pelagic species" describes the *L. anatifera* while the preference of exposed shorelines assumes an intertidal species which would be *P. polymerus* while the reference to a Spanish delicacy would be *P. pollicepes* (McFadden 2002). [30] While this confusion may be simply a mistake on Ozeki's part, it also exposes major

[30] Furthermore, if the barnacles were *Pollicepes polymerus*, they would not have colonized the bag mid-water and it would suggest that the bag had been along the British Columbia coast for much longer. It is likely that the species

tensions within the biological classifications of species which typically rely on morphological, geological, genetic, or reproductive characteristics. It is hypothesized that the *Pollicepes* "represent relict elements of the Tethys Sea fauna which have become restricted to the eastern boundary conditions of the Atlantic and Pacific Oceans" (Van Syoc et al. 2010).[31] [32] From this, we can understand the distinguishing of *Pollicepes* as an articulation of the changes in climate and geography throughout deep geologic time. Furthermore, *P. polymerus* has been exported to the Spanish and Portuguese coasts to supplement the decline of the population of *P. pollicepes* from overconsumption (McFadden 2002). From this confusion over the barnacles, it is clear that species are constantly evolving as they move and as the landforms around them move as well, modifying our understandings of stable habitats and locales.

Not only has anthropogenic debris made its way into intertidal systems, but these communities have also been cultivated through interactions with indigenous and nonindigenous peoples, articulating multimodal naturecultures. Oliver and Ruth frequent a clam garden, an island secret revealed by Muriel. There are many secrets kept by islanders: "secret clam gardens and oyster beds, secret pine mushroom and chanterelle patches, secret underwater rocks where sea urchins grew, secret marijuana grow-ops, secret telephone lists for salmon and halibut, meat and cheese and unpasteurized dairy" (Ozeki 186). Some of these secrets (clam gardens, mushroom patches) may have been passed on from Salish inhabitants. Others (marijuana grow-ops, telephone lists) appear as more contemporary traditions. To survive on the island is to be welcomed into these trusting relationships with community members and island ecologies and to

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upon the bag was *Lepas anatifera* so thus it is interesting that Callie expounds on the characteristics of the *Pollicepes* which is of a different genus.

[31] The Tethys Sea existed around 250-around 50 million years ago prior the the evolution of the Indian Ocean which would have been around the time that the ancient natives that Oliver is planting were also populating this area of British Columbia.

[32] However, *P. polymerus* diverged earlier from *P. pollicepes* and are morphologically more distinct (Van Syoc et al. 2010).

understand the underlying pledge to keep these places known among people who care — managed but preserved. These island secrets, communal yet sacred, offer an alternative to the capitalist declarations of private ownership by presenting the benefits of cultivating community between peoples and greater ecosystems.

Oliver and Ruth's clam garden, initially nurtured by the Coastal Salish, has had considerable abiotic and biotic effects on Pacific Northwest intertidal ecosystems for over three millennia. The clam garden is said to be "ancient and had been cultivated by the Salish for generations, but now few people harvested there, which was a pity because the gardens benefited by frequent harvesting" (Ozeki 186). By constructing rock terraces along the lowest low tide mark, indigenous societies amplified the supply of butter clams (*Saxidomus gigantea*) and littleneck clams (*Leukoma staminea*) in these gardens and created habitats for other intertidal organisms and animals (Lepofsky et al. 2021, Groesbeck et al. 2014). [33] In just twenty minutes in this clam garden, Ruth and Oliver dig up a hundred and fifty littlenecks and thirty oysters.[34] The productivity of these coasts was cultivated by First Nations peoples for centuries and traces of their dedication to the land remains today.

Ruth and Oliver do not just harvest littleneck clams but Pacific oysters as well which were introduced to British Columbia from Miyagi Prefecture in Japan, where Jiko's temple is located. Its non-nativeness is not unknown. In fact, Ruth alludes that "Everybody knew this. It was impossible to live on the island and not know this. Oyster farming was the closest thing they had to an industry, now that the salmon run was depleted, and the big trees had been cut" (Ozeki 187). While the Pacific oyster is notably introduced to Cortes Island, it has become integral to

[33] The interactions between humans and clams influenced and increased the life history of the clams as well (Toniello et al. 2019).
[34] Even so, a paleoecological study by Toniello et al. (2019) found that the clam gardens, following European colonization and industrial logging, are much less productive than they had been.

the economic well-being of the island. Just like bamboo could be considered an "invited invasion", Pacific oysters have integrated themselves into the commercial fabric of the British Columbia coast. They are not often considered "invasive" because they are cultivated for aquaculture industries.

Expanding on Cardozo and Subramaniam's notion of the "invited invasion", I invoke Lisa Lowe's Marxist situating of the Asian immigrants and Asian Americans as "neither 'abstract labor' nor 'abstract citizens,' but… historically formed in contradiction to both the economic and the political spheres" (*Immigrant Acts* 28). Lowe understands the legal and political construction of Asian America as reliant on the capitalist economic need for low-wage, exploitable labor. Lowe counters Marx's injunction that capital relies on "abstract" labor, or labor with no specificity, by establishing that "in the history of the United States, capital has maximized its profits not through rendering labor 'abstract' but precisely through the social productions of "difference", of restrictive particularity and illegitimacy marked by race, nation, geographical origins, and gender" (*Immigrant Acts* 27-28). I contest that nonhuman Asian American entities have been similarly economically marked as labor through the precarious delineation of nation or geographical origins attached to their species name which forbids these species from expanding outside of their capitalist usefulness. The existence of the Pacific oyster and other aquacultural and agricultural Asian domesticated crops (soybeans, bamboos for wood, peaches) relies upon a capitalist need for the most productive and economical crops. When these domesticated crops transgress the delineated margins of crop fields and oyster farms, they are marked with "invasion" and eradication is encouraged, an extension of the social productions of difference expressed by Lowe.

Thus, the Pacific oyster is only granted existence on the British Columbia shoreline if it remains within the bounds set by capital, akin to the positionality of the model minority. The Pacific oyster was imported to Vancouver by "entrepreneurial residents" (Silver 2014). [35] By the 1930s, it was the most harvested shellfish by volume in British Columbia. [36] Oliver recalls that the Cortes Island elders relayed that "You used to be able to walk barefoot on the beaches… [wherein] now the local beaches were covered with razor-sharp oyster shells, so it was hard to imagine walking barefoot" (Ozeki 187). In 2010, the B.C. intertidal shellfish aquaculture industry was worth $32.5million. Pacific oysters (*Crassotrea gigas*) and Manila clams (*Venerupis philippinarum*) made up 89 percent of the harvest by volume and 78 percent of the harvest by value (Silver 2014). The Pacific oyster has critically changed the intertidal ecosystems of the British Columbia coast however, its economic benefits outweigh its invasivity as defined by any other standard. [37]

These distinctions point to a critical division drawn between aquacultural spaces and "natural and native" ocean spaces, even the residual clam gardens. Nonnative species are unwelcomed in preserved areas but encouraged in centers of production. Jennifer Silver notes that "more broadly, environmental groups and other salmon aquaculture critics do appear to regard Pacific oysters and Manila clams as more ecologically benign than Atlantic salmon" (Silver 98). However, she additionally notes that there are clear tensions between the demands of the oyster aquaculture industry and the practices of the Kyuoquot-Checleschet shellfish

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[35] I assume Silver means white colonial settlers

[36] From 1929 and 1932, four million oyster seeds were placed around the southern coastline of Vancouver Island. During World War II, Japanese imports were halted (and Japanese settlers interned), however populations of the Pacific oyster had already spread along the coasts. In the mid-20th century, Pacific oysters began to out-compete native intertidal shellfish species.

[37] Kelly and Volpe (2007) note that the Pacific Oyster "differs from British Columbia's native oyster in being larger and faster-growing and having a higher filtering capacity and the ability to ingest a wider range of particle sizes (Quayle 1964, 1988). These characteristics make it **both** an ideal aquaculture organism and an ecologically significant invader" (My emphasis).

harvesting practices (Silver 90-91). These tensions reveal that the position of the Pacific oyster as "non-invasive" is tied more closely to its perception as a useful aquacultural good than research on its effect on the coast. A study by Kelly and Volpe (2007) substantiates this claim, finding that the influx of Pacific oysters on Cortes Island increases habitat complexity, alters water flow, and potentially causes sulfide accumulation in sediments. These sulfide accumulations are linked to the decimation of eelgrass populations around Cortes Island. Eelgrass communities are associated with "high primary productivity, sediment stability, habitat complexity, reduced wave action and production from predators for resident fauna" (Kelly and Volpe 2007). A shift from eelgrass-dominated ecosystems to oyster-dominated communities would constitute a critical change in the B.C. intertidal systems. In saying this, I do not contend that the Pacific oyster should be eradicated from these areas. However, I wish to argue that determinations of invasive-ness do not solely depend on ecological research but on the demands of capitalism and contemporary Orientalism.

Thus, the intertidal zone, in its reckoning with the ocean and the land and the national and the extranational, is an unrelenting space of hybridity, adaptation, and preservation. In the novel, the Island's oyster farmers are concerned about nuclear contamination of their oyster stocks by nuclear drift from the Fukushima Daiichi Nuclear Meltdown. There is a desire to control what can drift across the ocean, land upon the coasts, and alter ecosystems. But these time beings—plastic waste, dead jellyfish, littleneck clams, Pacific oysters, rocks, clam gardens — and their ecologies of entanglement are constantly creating the Cortes Island intertidal ecologies. We can further extract these physical borderlands onto much of Asian America that does not occupy the intertidal. [38] Within Asian American, these reckonings of place, between familiarity and

[38] However, we could also imagine the heavy immigration to California and B.C. as an extension of the intertidal, as the boundary lands between the Pacific and the innards of North America.

unfamiliarity, are ever-present. Thus, the sticky fragments of where we arrive from and where we migrate to remain stained in our histories; just as the transnational plastics and unknown barnacles wash up and integrate themselves onto the British Columbia shore and into the novel.

Japan Ecologies

Asian/America is not solely comprised of the Asian migration to the U.S. but more complicated interactions between Asia and America that seep into Japanese borders, industries, and ecologies. Thus, I turn to Japanese Ecologies, the setting of almost half of the novel. We must recall that as Ozeki writes on Japan, she is writing from American shores, influenced by U.S. perceptions of Japan. [39] Perhaps most pertinently remains the lineages of nuclear weaponry and power that have been exchanged through the Pacific — the dropping of the atomic bombs upon Hiroshima and Nagasaki at the end of World War II and the encouragement of a nuclear power program in Japan through the U.S.'s "Atoms for Peace" campaign (Jones et al. 2013).[40] Through postwar military occupations and global capitalism, the U.S. and Japan have been intimately entangled in mechanisms that engage with and further Japanese nationalism and American imperialism. Furthermore, disputes surrounding the indigeneity and invasivity of humans and nonhumans and these questions of what is "natural" and what is "unnatural" do not

[39] Which is evident in how she writes of Nao's overt sexualization and exploitation in the maid cafes and the general ambiance of decay of the ultra-technological Japan which leads Nao to eventually go to Canada for schooling.
[40] President Eisenhower, in 1953, delivered the "Atoms for Peace" speech to the United Nations in which he vowed that the US would support civilian nuclear energy development, reframing "nuclear power as a force for world redemption and [portraying] the United States as the world's benevolent superpower" (Jones et al. 2013). The repositioning of the U.S. global nuclear impact allowed the U.S. to alleviate itself of the moral responsibility of the atomic bombings of Hiroshima and Nagasaki. But through Eisenhower's pledge and ensuing action, the Japanese nuclear program emerged. With US encouragement, the Japanese government began propagating pronuclear sentiments through educational materials, speeches, newspaper articles, films, and more (Jones et al. 2013). General Electric, an American company, build the Fukushima Daiichii reactors with a design which was already designated as potentially faulty. Jessica Hurley's article, "Complicity, for the Time Being; Nuclear Entanglements from Atoms for Peace to Fukushima", poignantly explores these connections in more depth.

end at the U.S. border but remain pertinent, perhaps in slightly different formations, in the national construction of Japan. In carefully examining the forests that surround Jiko's temple in the Miyagi Prefecture and the urban settings of Tokyo, I will produce transnational, decolonial understandings of Asian America that do not rely so intimately on constructions of nativity.

Sugi Ecologies

Throughout the novel, Jiko's temple, which is in the Miyagi prefecture, appears as a nostalgic interruption of the overwhelming setting of Tokyo. The forests of sugi and bamboo surrounding Jiko's temple are a reorienting escape in time for Nao and her father. Nao, in describing the temple's landscape, observes that "getting there is traveling backward about a thousand years in time", which is similar to Ruth's description of the Cortes Island forests (Ozeki 154). The temple is positioned as further back in time than her life in Tokyo or even California. She describes these northern Japanese forests as distinct from the forests of the northern California coast near Marin and Humboldt; "in Japan everything was greener with a lot more trees and none of the designer homes" (Ozeki 156). The forests surrounding Jiko's temple are beholden to a pre-Anthropocene past. They are not a wilderness modified by a famous coastal highway and wine country for human consumption but a wilderness that simply exists that the temple is placed within. In this comparison between California and Japanese forests, Ozeki relies upon Western perspectives of Japan as inherently more in tune with nature. However, it can also be said that Ozeki offers the Miyagi forests as a postcapitalist forest in which Nao and her father rediscover their themselves away from the systems of abstract labor and capital within Silicon Valley. Perspectives on forests, transnationally, are dependent on the beings composing the forest and the being viewing the forest.

Yet the forests of sugi and bamboo surrounding Jiko's temple are not remnants of an Ancient Japan but manufactured through naturecultural interactions. The Miyagi prefecture and Fukushima prefecture were majorly impacted by the Great Eastern Japan Tsunami, Earthquake, and Fukushima Daiichi Nuclear Meltdown, including the area Jiko's temple is situated in. The nuclear incident occurring on these shores reveals that even rural wildernesses are subject to the disturbances and reconstructions brought forth by the Anthropocene and nuclear power. Thus, in examining the ecological history of sugi forests, we see that even these presumably "natural" areas have been coaxed, redefined and replanted under human interference.

The history and topography of Miyagi and Fukushima have been enmeshed in discussions of indigeneity and immigration for centuries. The cultural topography of the region of Tōhoku is mostly defined by large administrative areas with sparse populations and primarily primary industries, especially rice.[41] Even before the earthquake, tsunami, and nuclear meltdown of March 11, 2011, the region accounted for only 6 percent of Japan's GDP but over 16 percent of national primary industrial output. The northeast is typically understood as historically distant from the Japanese political, cultural, and industrial centers. Miyagi prefecture is described as the ancestral home of the Emishi indigenous population of Japan prior to their defeat by the imperial Japanese polity (Ozeki 141). Ozeki links a wistfulness for the Emishi as resistance to imperial Japan to the tragedy of the Fukushima nuclear disaster. However, as Nathan Hopson suggests in his book *Ennobling Japan's Savage Northeast*, the Emishi can be alternatively understood as the

[41] The six prefectures within Tōhoku make up 30 percent of Japan's landmass. However, population density is low in most prefectures with Sendai, in Miyagi, being the only city with a population over one million. The six prefectures within Tōhoku are incredibly heterogeneous and dynamic in cultures and natures. Sendai City in the years following 3/11 has completely rebounded while the Fukushima coast has been deserted. Geomorphologically, the region is divided by mountain ranges with fertile farmlands nestled in the inner valleys and steep rocky coasts that have limited seaport development.

written-over subaltern,[42] spoken for by the dominating Japanese polity. Prior to 1945, the Emishi were largely considered as "Ignoble Savages", resistors of modernization, which needed to be assimilated into the Japanese polity. However, after 1945, the Emishi were revisioned as resistors to Japanese imperial domination and a nostalgic symbol of Japanese indigeneity. Indigeneity in Tōhuko comes to represent a "purer" Japan, untouched by foreign, technological, or industrial contaminants.

Sugi, otherwise known as Japanese cedar or *Cryptomeria japonica*, holds an ambivalent relationship with Japanese forest ecologies; the ancient Yakisugi are revered while planted sugi plantations are detested. Communities of sugi are distributed throughout the Japanese archipelago (Takahara et al. 2022). After World War II, the Forestry Agency of Japan planted over 10 million hectares of forest, mainly sugi to offset the wartime overfelling that decimated domestic forests (Knight 715, Yamada 2013). Japan's 'forest civilization' as an opposition to the Western 'civilization of deforestation' was a reoccurring contestation by post-war nationalist Japanese thinkers (Rots 4). The sugi forests surrounding Jiko's temple are a part of the rebuilding of Japan in the post-war period, similarly to how the Emishi were reclaimed by Japanese historians to discover an alternative to the devastation of the imperial legacy.

On one hand, sugi is culturally important and is often planted at temples and shrines around Japan. In the Yakushima Forest which covers ninety percent of Yakushima Island, the Yakusugi (Japanese cedars grown on Yakushima) are considered sacred and protected with a

[42] Gayatri Chakravorty Spivak, in discussing the practice of *sati* or widow sacrifice in British India in her seminal piece, "Can the Subaltern Speak?", suggests that "between patriarchy and imperialism, subject-constitution and object-formation, the figure of the woman disappears, not into a pristine nothingness, but into a violent shuttling which is the displaced figuration of the 'third-world woman' caught between tradition and modernization" (Spivak 306).

UNESCO Natural World Heritage designation (Nagata 2018).[43] On the other hand, the sugi monocultural plantations have been recast as a threat to the Japanese ecological polity, both human and nonhuman. When wood tariffs decreased in 1964, Japan became the largest importer of tropical wood, responsible for the deforestation of tropical forests in Indonesia, the Philippines, and Malaysia as well as boreal forests on the northwest American coast (Knight 713). Sugi plantations, now commercially abandoned, became negatively linked to decreasing forest biodiversity and worsening pollen allergies in Japanese communities.[44] In the past century, the prevalence of cultivated sugi has altered popular imaginings of the tree species to become "unnatural".

Restoration efforts following the 3/11 have focused on restoring non-sugi infested forests in Northeast Japan, physically reconstructing what a "native" and "natural" forest is understood as. In the years following the Great East Japan Earthquake, there has been a concentrated effort to reforest the Miyagi and Fukushima coasts decimated by the disasters.[45] Most of the trees wrecked were conifers; either pines, planted for coastal protection, or sugi. Many scientists for the coastal restoration project have advocated against the planting of conifers in the redeveloped forests, citing poor coastal stabilization abilities (Rots 6). Miyawaki Akira and other voices on the project wished for the post-tsunami forest to represent a native original Japanese forest, reclaimed from the war, globalization, and the monocultural sugi and pine plantations. In the

[43] Interestingly, Takahashi et al. (2008) found that the gaps created by selective logging in the centuries previously have been important for the regeneration of these Yakusugis. While logging is no longer permitted in the Yakushima Natural World Heritage site, natural disturbance events such as typhoons have been important in the regrowth of the sugi (Takahashi et al. 2008).

[44] Yamagawa et al. (2010) argue that "one of the major problems associated with the sustainability of forest ecosystems is the extensive areas of even-aged sugi… plantations… [which] are responsible for a severe decline in biodiversity at the subglobal scale" (Yamagawa et al. 2010).

[45] A study by Zhao et al. (2013) utilized high-resolution satellite images to find that ninety percent of coastal forests in the Sendai region had been destroyed. Trees were not only initially knocked down by the tsunami event but those that survived were damaged by emersion in sea water (Hirayama et al. 2020).

urgency to recover what is lost from war and the tsunami, visions of proper forest stewardship continue to craft new formulations of what these coastline ecologies should look like.[46] While the novel does not establish post 3/11 existences for Jiko's temple and forests, this history reveals that the sugi forests that the novel reveres as "ancient" are being altered by disturbance and human response to disturbance.

There is no true definition of an ideal coastal forest, perfectly malleable and manageable by humans, that will transcend unpredictable disturbance such as the Great East Japan Tsunami. The tsunami, an infrequent but extreme disturbance, created heterogeneous surfaces for forest regeneration. Instead, we must attempt to understand that forests emerge as an assemblage of multispecies naturecultures. Areas deemed "natural" by Nao or greater society are created and recreated through their interactions with culture and time. Furthermore, conceptions of indigeneity, both for Japanese peoples and plants, have been critical in shaping Japanese national identity. Indigeneity, in this sense, holds different power and symbology than indigeneity in the settler colonial American context. Thus, we can additionally understand that these definitions of indigeneity and invasivity shift across space and through time.

Urban Ecologies

Urban ecologies present complementary naturecultural constructions alongside the forests of Northern Japan through the opportunity to parse out how nature and natural phenomena continues to invade and permeate the urban space. In reassessing the urban ecologies of the Tokyo as presented in the novel, we begin to see a city that is additionally permeated by a non-

[46] As Aike P. Rots writes in his ethnographic piece on the reforestation project, "ironically, the tsunami provided an opportunity… to 'restore' this 'original' forest — despite the fact that the coastal forest had been composed of pines since at least the Edo period, and that pine trees continue to be seen as the original coastal landscape by many people who grew up in the area" (Rots 3).

human environment which humans cannot build over. These ecologies often majorly differ from a pre-urbanized form and feature both what we consider pests, what will not be eradicated, and what we consider ornaments, which we plan, cultivate, and raise. They may include rats, crows, domesticated pets like dogs and cats, zoo animals, and botanical gardens. Invasivity and unnaturalness are additionally constructed within the novel's cityscapes through how Techno-Orientalism, which has come to define contemporary Western engagement with Japan, interacts with urban naturecultures.

To Nao, Tokyo is a regression of her life back in Sunnyvale, California. Even the historical naming of Sunnyvale[47] suggests that in California, life is sparkly, joyous, and filled with ever-lasting sunshine. However, when the Yasutanis move to Tokyo, "the neighborhood was more like a slum, old and crowded, with small, ugly apartment buildings made of water-stained cement all crammed together on this crooked street" (Ozeki 129). In the Yasutani's neighborhood, descriptions of water-stained cement and old-roof tiles suggest weathered materials, slowly eroded away by rains made acidic by air pollution and polluted water runoff and seepage from broken pipes. The inhabitants of west Tokyo, alongside the Yasutanis, are primarily hostesses "who never sorted their recycling and ate take-out bento from 7-Eleven and came home drunk with their dates at five or six in the morning" (Ozeki 44). The neighborhood and the Yasutani's return to Tokyo are a deviation from the typical promise of the Asian American Dream — hard work equating success, the nuclear family operating at the center of the community, and culminating in a home in Sunnyvale, California. Listening to their hostess neighbors have sex during breakfast is disparate from the day-to-day of single-family homes of the Silicon Valley, evenly distributed by manicured lawns and separated by the metaphysical

[47] Which is in fact a real city in the Bay Area.

walls of the domestic sphere. Silicon Valley, as a hub of technological advancement, similarly to Akiba Town is associated with high-tech futurities. However, in the image of Silicon Valley and Sunnyvale, we do not see a fetishized technological future — as we do in the Techno-Orient— but the integration of Asian America into the domestic and capitalist ideals of American society. The Yatsutanis do not simply regress to a lesser model of technological advancement but to an area of near ruin. In the naturecultural construction of the Yasutani's past and present habitation, the myth of the model minority as the American Dream is tragically refuted.

The built environment that now occupies Akiba Town, where Nao writes much of the journal, is a conglomeration of Tokyo's rapid urbanization and visions of the Techno-Orient. Akiba Town is now "wild and weirdly awesome…[with] these narrow alleyways and shopping streets lined with stores and stalls spilling over with circuit boards and DVDs and transformers and gaming software and fetish props and manga models and inflatable sex dolls and bins filled with electronics and wigs and little maid costumes and schoolgirl bloomers" (Ozeki 290). I suggest that the "techno-orient litany" reveals the form of an Oriental cyber society — sculpted by the disposability of plastic, mass-produced fetish products and internet worlds. In Techno-Orientalism, as discussed by Toshiya Ueno, "the landscape and atmosphere of Japan, as a typical model of over-adjusting to the high-tech built environment, are constantly referred to as signs of the near future… The West is seduced and attracted by this model, but at the same time Japan is looked down upon rather than envied by the West" (Ueno 98). The technologies of Akiba Town are inherently seen as cyberized or costumed replacements for a femininized Orient. The fantasies presented by Akiba Town are escapist and indulgent—towering anime girl posters with "humongous luscious tits busting out of their galactic superhero reformer costumes" and beckoning Japanese French-maids at cafes suggest an attainable and eager Japanese femininity

dressed in the futuristic fantasy garb of the new Orient, which is built over and dominates the natural (Ozeki 290).

And yet, the area was once called Akihabara which "means Field of Autumn Leaves, but the fields and leaves have all been replaced by electronics stores" (Ozeki 290). Ironically, the hub in Tokyo for video games, manga and electronics retains a name alluding to a prevalence of deciduous trees.[48] Historically, this field was present during the Edo Period (1603-1868). The field was maintained, during that time, to prevent fire from spreading to the imperial palace (Dadoun 2022). Not only does the history of Akihabara suggest dynamic multispecies grassland ecologies, but it was also maintained by human communities, refuting a notion that Akihabara was originally "wild" and now is "built". Akihabara has always been produced and known as the product of multispecies interactions. The Akiba deity, who still protects the neighborhood, is known as a deity who controls fire. A specter of Akihabara's grassland past is reheard and reproduced every time the name is said.

In positioning the decay of the Yatsutani's new neighborhood alongside the fetishized, hyper-technological Akihabara, Ozeki reiterates the extremes put upon the Techno-Orient — the "high-tech city alongside the 'quasi-ruined landscape'" (Ueno 97). The Techno-Orient remains a projection of the Western and capitalist anxieties upon the East, which Ozeki herself participates in. However, Sunnyvale, California, as a stand-in for Silicon Valley, is additionally defined by vast wealth disparity with "the top 1% of households holding 48 times more of the total wealth than the bottom 50%" (Lazo 2023). Just as technological developments have been produced by consumerist vies for economic power on each side of the Pacific, the inequities produced by

[48] And leaves are essential to the maintenance of a forest ecosystem — the falling of leaves deposits leaf litter which can decrease soil erosion by soaking up rainwater and other runoff. Leaf litter deposits, additionally, provide habitat cover for vertebrate and invertebrate species and are slowly consumed by decomposers, which in return provide limiting nutrients such as nitrogen for the soil.

technology industries transcend the Pacific as well, revealing that the Techno-Orient projects Tokyo as a technological fantasy to escape to and an apocalyptic future to avoid. The idealization of the Techno-Orient implies that what is natural is dominated by technology. However, the naming of Akihabara and the early-successional degradation of the built environment of the Yatsutani's neighborhood suggest that nature persists in these ultra-urban spaces.

Pacific Ecologies

The ocean acts as a critical space of configuration and entanglement for Nao and Ruth's intertwined narrative. However, as the materiality within the Pacific Ocean is often disregarded in Asian American studies, "the burgeoning use in Asian American studies of the keyword *transpacific* might well relegate Indigenous peoples of the Pacific to a kind of *flyover* (my emphasis) status" (Suzuki and Bahng 2020). The ocean becomes a negative space over which Asian America is created. The transpacific becomes a nickname for the Asian diaspora. [49] Thus, I encourage a "seascape epistemologies", taking up Karin Animoto Ingersoll's terminology, to encourage knowledges that arise from a "visual, spiritual, intellectual, and embodied literacy of the 'aina (land) and kai (sea): birds, the colors of the clouds, the flow of the currents, fish and seaweed, the timing of ocean swells, depths, tides, and celestial bodies all circulating and flowing with rhythms and pulsation" (Ingersoll qtd. in Suzuki 17). To uncover a seascape epistemology, I utilize the Jungle Crow, prominently featured throughout the book, to explore an Asian American transpacific that engages with the Pacific as place, moving beyond normative representations of invasion and migration.

[49] This disregard is especially pertinent when discussing Hawaii and other Pacific Islands because of its geographical location in the midst of the Pacific Ocean and the complex entanglements between Asian settler colonialists and the Kānaka Maoli, the peoples indigenous to the island.

Michelle Huang in "Ecologies of Entanglement in the Great Pacific Garbage Patch" and Erin Suzuki in her chapter "Virtual Passages" within *Ocean Passages* interact with the Pacific Ocean within Ozeki's work as a space wherein the embodied subject is revealed to be deeply entangled with a several spatial systems and communities. The Great Pacific Garbage Patch and the planetary gyres operate beyond anthropogenic forces by latching onto and refusing to forget the waste we disseminate into our negative oceans. Huang, using this understanding of the gyres, explores how the persistent formations of what we consider "garbage" permeate the racial form of Asian America. Separately, Suzuki relates the gyre and the greater Pacific to the Internet, both seen as "a dynamic fluid space, promising increased interconnectivity, exchange, and profit… deeply suspect, as… the openness and the inappropriability of the high seas continue to haunt transpacific projects of neoliberal futurity" (Suzuki 189). I will build on their critical analysis of the Pacific Ocean as a central figure in Ozeki's work through the Crow and transpacific bird migration to move beyond understanding the airspace of the Pacific as merely a "flyover" zone.

Ozeki's positions the Jungle Crow as a migrant from Japan to British Columbia and a spiritual medium through which Ruth becomes embedded within Nao's future. In doing so, Ozeki imagines time being futurities that stress nonhuman and human migratory actors. The Jungle Crow emerges in the novel the same day that Ruth finds the freezer bag with Nao's journal. That same day, Oliver had heard "the ravens talking… They were up in a fir, making a lot of noise, flapping around, all excited" resulting in his observing of a smaller bird that "looked like a crow, only it was bigger than *Corvus caurinus*[50], with a hump on its forehead and a big thick curved beak" (Ozeki 55). When discussing the Japanese crow and the Northwestern crow, Ruth interjects Oliver's dialogue, stating offhandedly "This is Canada… We should have

[50] The Northwestern Crow which is native to British Columbia.

Canadian crows" (Ozeki 54). In this proclamation, Ruth iterates commonplace correlations between nationality as created by 19th and 20th century discourses and the spatial stagnancy of the human and nonhuman species. The Japanese Jungle crow (*Corvus japonensis*), a subspecies of the Jungle crow (*Corvus macrorhynchos*), has never been spotted in the Americas.[51] However, the Jungle crow is commonly associated with being a good "colonizer" of new spaces as it easily adapts to spaces and tolerates a variety of food sources ("Large-billed Crow"). In ecology, colonization describes incidences when a species moves into and takes over a novel area, either in cases of succession, where the area is barren of life, or in cases of invasion, where the area has native species which the colonizing species outcompetes. However, it is additionally clear that this terminology draws from and is entangled with histories of colonialism. In discussions of invasive species, their ability to "colonize" the space they are non-native to is often cited as rationale for their eradication. This terminology, while widely understood, is suspect because of the historical implications it places upon ecological concepts.

The Jungle Crow and its role in the novel projects an imagined futures for the crow. One narrative could foresee the Jungle crow, stressed from outsized factors (a devastating tsunami, earthquake, and nuclear meltdown perhaps), which forces it to make a transpacific journey to British Columbia. As the crow is not known to be a strong long-distance traveler, the flight could be symbolic of drastic disturbance of the crow's home, or the crow could be aided by the long-haul ships crossing the Pacific and the islands in between. In the imagining of the Jungle crow's migration, we acknowledge the pathways of "invaded", non-native species beyond simple introduction, cultivation, and "escaped" invasion, and colonization narratives.

[51] Crows are not known to be "migratory birds", which refers to the regular seasonal migration of a bird species.

Imagining the Jungle Crow's journey across the Pacific formulates a drift-based migration which decenters the agency-based migrant. As Oliver says, "Anything's possible. People made it here in hollowed-out logs. Why not crows? They can ride on the drift, plus they have the advantage of being able to fly. It's not impossible. It's an anomaly, is all" (Ozeki 55). In fact, a study by Carlton et al. (2017) "documented a minimum of 289 living invertebrate and fish species arriving from Japan", associating these drifted species to the millions of objects propelled into the Pacific Ocean in March 2011. This debris, both abiotic and biotic, have washed ashore upon Midway Atoll, the Hawaiian Islands, Alaska, and California. Furthermore, the survival of invertebrate species upon debris vessels for the numerous years revealed that these coastal specimens were capable of long-term survival in conditions dissimilar from environments they evolved in. [52] As time goes on, further evidence of these newly arrived biotic specimens colonizing the coasts may appear. While the 2011 Great East Japan Earthquake provides an extraordinary example of transoceanic biological rafting, the study noted that "transoceanic rafting is a fundamental feature of marine evolutionary biogeography and ecology, often invoked to explain the origins of global patterns of species distributions" (Carlton et al. 2017). Thus, while it is unclear if there exists documented evidence of a bird species drifting alongside these coastal invertebrates and fish, it would not be (as Oliver says) impossible but an anomaly. Guided by drift along ocean currents, notions of migration, settlement, and colonization as primarily individual interest-driven are challenged through acknowledging the abiotic forces that drive migration. In thinking of the Crow as a form of biologic rafting, we envision novel

[52] The study associated marine debris with being effective long-term transport for coastal species because their slow-moving nature allows for acclimatization time for the biota as well as their existence as one-way arrival events (in contrast to transport ships) allowing for longer periods of residence time in novel environments. In connection to the increasing quantity of oceanic debris, this may point to a larger future phenomenon of drifting coastal organisms especially as natural disasters continue to plague coastal megacities.

migration patterns that may become more and more common as coastal areas become inhabitable for the human and nonhuman beings that comprise them.

In addition, we can look to existing models of seasonal bird migration, which both counter prevalent constructions of "indigeneity" and express potential futurities for Anthropocene-driven climatic realities. Numerous species of birds are known to make biannual transpacific flights. In fact, more land birds cross the Pacific Ocean than any other ocean (Williams and Williams 1999). The Bar-tailed, *Limosa lapponica*, for one, has one of the longest non-stop migrations, traveling from Alaska to New Zealand and eastern Australia. For Gill et al. (2009), a study tracking nine Bar-tailed Godwits on their transpacific flight revealed two key interventions in ornithological research: 1) an exciting model of extraordinary physiological vertebrate capabilities and 2) a reformulation of the Pacific Ocean as a corridor rather than a barrier. [53] Once they reached the southern central Pacific, a couple of the tracked godwits stopped on islands. The bar-tailed godwit demonstrates the long-haul capabilities of birds and their transpacific existences which incorporate the Australian Pacific coasts, the Pacific Islands, and the North American Pacific coast. These birds have adapted to transpacific expeditions and migrations which transcend our definitions of enclosed ecosystems and native spaces. Rather than these migrations existing as a drastic transformation to the godwit's evolutionary history, they are an integral part of them. Normative impositions of nativity upon migratory birds and the construction of the Pacific as a barrier for beings rather a corridor of constant travel is insufficient. Furthermore, these migrations of the godwits have critically shaped Mäori folklores as observations of the küaka (the Mäori name for the godwit) migration is said to have led to the

[53] This is reasoned because detours across the Pacific for fuel restocking would majorly increase the distance of the trip and thus expended energy, the intertidal infauna of the Yukon-Kuskokwim Delta is extremely biomass dense and thus can support high-food intakes for the godwit, this corridor lacks avian predators and pathogens which would be found through other pathways, and more favorable winds track a central passage (Gill et al. 2009).

discovery and settling of Aotearoa by the Mäori (Gill et al. 2005, Jimenez 2020).[54] The godwits migration integrates the Pacific, the Pacific Islands, Asia, North America through shared ecologies and stories.

The Jungle Crow, comparably to the Bar-Tailed godwits, becomes incorporated in a cosmology that centers the nonhuman as kin and deconstructs borders and barriers, such as the Pacific Ocean, as inherently stable and definitive. The crow acts as the totem through which Ruth interacts with Nao. Through the Grandmother Crow stories of the Tla'amin indigenous community and the Crow Captain tales of Japanese novelist, Kenji Miyazawa, the Jungle Crow is revealed to be a protective figure. When Muriel first spots the Jungle Crow, she shares the story of the Grandmother Crow[55] or T'Ets, "a magical ancestor who can shape-shift and take animal or human form" and the caretaker of the first Tla'amin peoples[56]. As the creation story goes, T'Ets' granddaughter was abandoned by the tribe under Raven P'a after "against all advice, [she] ate tree pitch, which caused her to become pregnant with puppies" (Washington 2004). Grandmother Crow took pity on her, leaving her an ember in a clamshell saving the lives of her granddaughter and the Dog Children (Washington 2004). Around the fire, the Dog Children removed their skins and became human. When Grandmother Crow visited her granddaughter to see if she had survived, the grown children greeted her and fed her. Raven discovered Crow's

[54] Similarly, the Pacific Golden-Plover journeys from Alaska to the Pacific Islands. The *kolea*, as referred to by indigenous Hawaiians, are considered protector spirits and their migration is also tied to settlement myths (Jimenez 2020).

[55] Narrations of this creation story by Siemthlut and others, do not associate the girl's grandmother with the Crow figure (Washington 2004, Patrick 2004). I attribute this difference to the nature of oral traditions and their reinterpretations in different situations. In Ozeki's case, the association of the Crow to a caretaker figure fits Ozeki's fiuration of the Jungle Crow within the novel.

[56] For context on indigenous geographies of the area: the area and the indigenous populations who have inhabited the region are often grouped together as the Northern Coast Salish because of their linguistic and geographical similarities. The Tla'amin are closely linked to the Klahoose and the Homalco First Nations, sharing *Jeh jeh* (family ties), territories and the "*Eye a jo sum*" language (Washington 2004). In fact, both Tla'amin Elders and academics often consider these three groups "one people" because "we have intermarried extensively with our immediate neighbors and have at times shared villages and resource-gathering areas" (Washington 2004). I have mentioned the Klahoose in other sections and wished to give context on those distinctions.

visit and allowed the granddaughter and her children back to the village and held a feast in their honor. Siemthlut Michelle Washington, a member of the Tla'amin First Nation and scholar in decolonializing museums, affirms that "thanks to these Dog Children, we harvest the foods of the land and the sea. These were the ancestors of the Sliammon people" (Washington 2004).[57] Through this mythology of the Crow, emerges an understanding of animals as apart of familial kinship relationships. In Muriel's telling of this story in connection to Ruth's Japanese Jungle Crow, the Crow takes on a kindred positionality for Ruth, particularly as the *Sheh te guus* (transformer) of Jiko's spiritual being.

The Kenji Miyazawa's Crow Wars story guides Haruki #1's momentous decision to fly his plane into the sea. The Crow functions as a guiding force for Haruki #1's reckoning with the devastation of war. In his last Japanese letter, Haruki #1 mentions that his decision to become a kamikaze pilot was inspired by Miyazawa's Crow Captain and his "lifting off from his honey locust tree and taking to wing to do battle. *I am Crow!* I thought ecstatically" (Ozeki 258). It appears that the Crow is relentless in war, willing to end his own life for the good of the Japanese empire. However, in Haruki #1's French letters, he recalls the last scene of the Crow Captain story in which the Crow Captain buries his dead enemy and prays to the stars: "*Blessed stars, please make this world into a place where we will never again be forced to kill an enemy whom we cannot hate. Were such a thing to come about, I would not complain even if my body were torn to pieces again and again*" (Ozeki 324). The resolution of the Crow Captain story is the repentance of the requisite destruction of the enemy to prevail in war. The Tla'amin Crow Grandmother and Japanese Crow Captain, acting as mythological protectors for Ruth and Haruki #1, reveal cosmological integrations of the human and the nonhuman throughout the Pacific.

[57] Formerly referred to as the Sliammon but Tla'amin has been taken on as a more accurate translation of their traditional name. I will be thusly using "Tla'amin".

The Jungle Crow, as a protector for Ruth, is tethered to her unconscious interactions with Jiko and conscious interactions with the crow. Through her dreams, Ruth foresees sections of Nao's diary and critically alters the ending of the journal and Nao's future. In the first time Ruth dreams of Jiko, she envisions the temple and the surrounding forests, watching Jiko type her answer to Nao's text message. At the end of the dream, Ruth observes as the nun "took a deep breath, and then another, and raised her arms out to her sides, spreading the wide black sleeves of her robes like a crow stretching its wings and preparing to fly" (Ozeki 40). The second dream of the nun occurs following Ruth's reading of Nao's journal entry on her funeral. Right before Ruth falls asleep, she thinks of the Jungle Crow; "Somewhere out there, the crow perched in the boughs. Their crepuscular crow. She couldn't see it, but she liked the thought of the black crow hidden in the shadows" (Ozeki 122). In this dreamscape, Ruth returns to the temple and to the old nun, who offers Ruth her glasses. When Ruth dons the lenses, she becomes overcome as

> "the smear of the world began to absorb her, swirling and howling like a whirlwind and casting her back into a place or condition that was unformed…. Not a place, but a feeling, of nonbeing, sudden, dark, and prehuman, which filled her with such horror that she cried out and brought her hands to her face, only to find that she no longer had one. There was nothing there. No hands, no face, no eyes, no glasses, no Ruth at all. Nothing but a vast and empty ruthlessness" (Ozeki 122).

While the first dream introduced the possibility of entangled phantasmagorias between Ruth and Nao, the second expresses the difficulty of comprehending these unfathomable connections. For the time being ecologies, Ruth's feeling of "nonbeing" and "prehuman" reiterates the commonplace emphasis on the importance of "being". However, as expressed throughout the book, the time being transcends the futility of the enclosed, Lockean being that precludes a

human body and a determined soul. In this dream as well, she makes note of "the wide black wing of [the nun's] sleeve", linking the nun's black cloak to the crow imagery (Ozeki 122). Through, these recollections of Ruth's dreams, it is alluded that the Jungle Crow is the old nun (Jiko) transformed into animal form. Thus, Jiko and the Jungle Crow, in the novel are formed as a reincarnation or reiteration of the Grandmother Crow in the Tla'amin folklore.

Jiko as a transformed Crow creates settings for Ruth and Nao to understand their place in the world and connection to one another. In Ruth's final dream which occurs after the words disappear from Nao's journal, she returns to the temple but this time, her focus is on locating Nao and Nao's words. The letters. "C", "R", "O", "W, appear in the sky and assemble themselves into the Jungle Crow which leads her to Haruki #2 who is sitting feeding crows. Ruth alerts him of Jiko's impending death and Nao's plan to commit suicide herself. She is transported back to the temple where she places Haruki #1's secret French journal into his *ikotsu* (remains) box. After doing so, the old nun returns;

> "she's wearing black robes, and when she stretches out her arms to enfold the world her long sleeves billow. Longer and wider they grow until they are as vast as the sky at night, and when they are big enough to hold everything, Ruth can finally relax and fall into her arms, into silence, into darkness" (Ozeki 354).

This encounter transforms the present for both Ruth and Nao and offers previously unimaginable futures. Nao and Ruth's presents, separated by the Pacific Ocean and several years in time, alter each other through otherworldly mechanisms. In this construction, the expansiveness of the Pacific Ocean as a barrier for transpacific communication and connection is irrelevant. Thus, the Jungle Crow, in its locus in the transpacific drift and as the phantasmic reincarnation of Jiko, offers an alternative paradigm to understand the Pacific Ocean through.

To read the Crow beyond the perspective of the human produces a multispecies ethnography of the embedded histories within the British Columbia coast.[58] Ozeki allocates several sections of the novel to an omniscient third-person narration of the Jungle Crow's perspective. Ruth is attempting to reconnect to a webpage after a power outage and screams "*NO!"* when she cannot reload the page. The Jungle Crow, hearing this shriek, soars above the canopy, where it:

> "could see all the way to the Salish Sea and the pulp mill and the logging town of Campbell River. A cruise liner bound for Alaska was passing through the Strait of Georgia, all lit up like a birthday cake, covered with candles. Circling higher still, up and up, and the mountains of the Vancouver Island Range came into view, the Golden Hinde, and the white glaciers glowing in the moonlight. On the far side stretched the open Pacific and beyond, but the crow could not fly high enough to see its way home" (Ozeki 174).

Through this iteration of the birds-eye view of Cortes Island and the surrounding geographies, we return to the British Columbia coast, the histories rooted within it, and the expansiveness of the Pacific Ocean. Ozeki has marked out the human-labels for the landmarks and the naturecultural weight behind them: the Salish Sea which grasps onto the historic and present presence of the Coast Salish peoples, the pulp mill and the logging town, named after a British ship surgeon and which reminds us of the original industrial logger settler colonialists of these islands, the cruise liner to Alaska affirms travel that has occurred along the coast for millennia, the Strait of Georgia named for King George III in the late 18th century, and the Golden Hinde, the highest peak on the Vancouver Island named for Sir Francis Drake's ship upon which he

[58] Of course, this passage is written by Ozeki and thusly still retains those characteristics.

circumnavigated the globe traveling from the North American Pacific Coast to Asia. These histories of human inhabitation, colonization, and naturecultural integration are intertwined in the geographies of the southern British Columbian coast. And yet, the Jungle Crow[59], in flying over these landmarks, would not implicitly know these names or these histories. [60] But the specters of these names also bleed into the landscapes — the clam gardens along the Salish Sea, the regrown forests and remaining clear-cuts from industrial logging, the construction of docks and ports for cruise ship travel which critically alter landscapes, the names of British and Spanish royalty and captains alluding to the history of European settler colonialism which can be traced to the current populations of these islands. The Jungle Crow, in observance of Cortes Island and connection to Ruth and Oliver, must navigate the material legacies of these names left in docks, forests, and homes.

The passage ends with a melancholic sentiment — that as high as the Jungle Crow can fly, "the crow could not fly high enough to see its way home" (Ozeki 174). However, multiple futurities emerge for the Jungle Crow (and Nao and Ruth and every other character in the novel). On one hand, migratory birds have never relied on sight to return each year to breeding grounds and their summer residencies — the Jungle Crow could return home. In another, the Jungle Crow remains in British Columbia. In another, the Jungle Crow migrates elsewhere, perhaps even to Nao's present. These futures exist and only with the embarking upon one of them, will the others become non-observable. Thus, the Jungle Crow, despite its positionality as a terrestrial bird, allows us to view the Pacific as the space of potential through which the coasts and the pelagic are constantly entangled in the time being ecologies of the Pacific and becoming redefined, modified, and recreated.

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[59] Even if we understand the Jungle Crow to be a reincarnated Jiko
[60] And to be frank, many of us would not either.

Chapter 3: Towards Transpacific Asian/American Ecologies

In disentangling the novel's time being ecologies, I have explored the deeply embedded knowledges of and within the time beings presented by Ozeki in the novel. However, to conclude without explicitly acknowledging the entanglements between these separately investigated time being ecologies would disregard the time being as porous and aggregate in nature, constantly modifying, merging, and moving itself and others. Thus, I will dedicate the first part of this last chapter to revealing the intricate ways in which these spaces— British Columbia, the Pacific, and Japan — and these ecologies — of the Jungle Crow, Japanese cedar, the British Columbia coastal temperate rainforest, the B.C. intertidal zone, and the Japanese urban centers— interact and affect onto each other. In doing so, I will elaborate upon oft-cited insight by Kandice Chuh of understanding Asian America as a subjectless discourse which foregrounds *differance* in the Derridean sense — through the constant deferral of a stable identity (Chuh 2003). I will also follow David Palumbo-Liu's utilization of a slash between Asian and America, visualized as Asian/America, which "marks both the distinction installed between "Asian" and "American" *and* a dynamic, unsettled, and inclusive movement" (Palumbo-Liu 1). Through how these time being ecologies intersect through temporal and spatial scales, I will move towards transpacific Asian/American ecologies. Particularly, I am interested in Asian/America as subjectless and dynamic because it considers not only human actors but nonhuman living and nonliving materials and the interactions amongst them.

Ozeki confronts questions of intranational constructions of Asian/America and the expansiveness of an Asian America that persists beyond the legal national boundaries, through her centering of a Japanese American woman living in British Columbia and a Japanese American girl living in Tokyo. In doing so, she reveals the subversive inter-agential cuts enacted

by the individuals and collectives within time being Asian/American ecologies. Thus, I reiterate Candace Fujikane's mapping of abundance to produce settler aloha ʻāina praxis in mapping routes of materiality through and within the Pacific that engage with the British Columbian and Japanese coasts. Through attending to the abundance — the richness of what partakes in transpacific Asian/American ecologies — we move away from myths of scarcity that presume capitalist models of land ownership that require racialized nonhuman and human labor to persist. We confront the embedded presences of settler colonialism and reveal subaltern resistances to these formulations of oppression. We find heterogenous spaces and materials through which Asian America is formed akin to Lisa Lowe's coining of *heterotopicality*, referring to the "sense of multiplicity and interpenetration — the continual yet uneven overlappings, intersections, and collusions of discursive articulations" (*Critical Terrains* 15). Discourses of invasion are conjoined but discernably separate from discourses of invitation. What has invaded is often invited at some point and what has been invited can also be construed as an invasion. There are, and always have been, extralegal routes of power and agency taken up by Asian American time beings alongside the oppressive structures and formations of power through the Pacific Ocean and within Japan, the U.S. and Canada. I will map what I consider the main forms of exchange of abundance that creates Asian America: the drifting of material, the more purposeful exchange of goods, the "invasion" of a supposed bound-space, and the hybridizing between the introduced/invasive and the indigenous/naturalized.

Drift

The drift, what continues to flow despite itself, refutes notions of enclosable national borders and offers a way to understand subjectless Asian/American migration. I define "drifting"

as movement through which abiotic forces (ocean currents, wind, tides) transport matter, both living and nonliving, across and through time. Focusing on the drift rethinks our dedication to agent-mediated migration and forces us to reconcile the movement of the human, the animal, and the plant. As warming climates critically alter ecosystems and communities, a rethinking of immigration and the enforcement of borders is necessary. If rising sea levels and wildfires reshape the borders we have drawn up in treaties, we cannot expect populations to remain within them as well. Understanding the history of drift through the ocean, along the coast, and through terrestrial landscapes reminds us that this typology of migration has constructed Asian America for millennia. The material we wish to transmit and the material we wish to forget travels through, sinks to deep recesses in the Pacific or washes up transformed upon a different shore. The drift signals different temporal scales of interaction between systems often considered stable or closed. From the plastics and the astray Japanese wooden boats fragmenting into bits within the ocean's gyres to the thermohaline circulation of ocean waters which exchange heat and nutrients throughout the Pacific[61] to the traces of radioactivity within the waters from nuclear testing in the Pacific, these abiotic-dominated forms of movement are coded by entrenched histories of Pacific interactions.

The presence of radioactive materials within the Pacific and upon the coasts offers a cartography of historically-embedded, heterogenous drifting. In the novel, nuclear entanglements express an embedded history of U.S.-Japan postwar relations and the rebuilding of the Japanese

[61] Thermohaline circulation drives the major overturning of the Earth's oceans driven by the water's density, determined by the temperature and salinity of the water. This circulation virtually mixes the ocean as well as controls temperature within the ocean, which then affects climates of terrestrial landforms. There is speculation that thermohaline circulation will be critically altered by changing climates and melting sea ice, as the cycling forces will become less vigorous. The Bar-Tailed godwit, which I mentioned in the previous chapter, relies heavily on North Pacific upwelling guided by these currents which creates incredibly nutrient rich waters and allows the godwit to feast prior to its Transpacific journey. These journeys of the godwit and everything else that interacts with the oceans will be critically altered as thermohaline circulation patterns change ("Thermohaline Circulation").

polity following World War II. The fear of nuclear debris drifting onto the Canadian and U.S. Pacific coast following 3/11 reflects the persistence of postwar interactions within Japanese and U.S. landscapes. Radioactive waste and the inability to perpetually contain it within holding tanks emphasizes how drift continues to occur despite human-centered infrastructure. Further, discussing the radioactive Pacific forces an acknowledgement of the Pacific islands upon which these bombs were tested. The United Nations reported that at least 200 nuclear devices were detonated in the Pacific by 1980, justified by the U.S.'s desires to continue to develop nuclear prowess in the Pacific through the Cold War (Teaiwa 1994). The legacies of nuclear radiation upon these islands and the surrounding ocean have completely transformed the seascape epistemologies of these spaces. Moruroa in French Polynesia is said to contain a hundred times as much radioactive material as dropped upon Hiroshima (Teaiwa 1994). These tests have forced the relocation of indigenous Pacific Islanders and severe amendments to their lifestyles and health. But in the end, just as the nuclear waste could not be contained within Fukushima, this radioactivity cannot be isolated to these Pacific Islands and continues to permeate the stable shores of Japan and the United States. Radioactivity, emerging from these inter-Pacific relationships between the U.S., the Pacific Islands, the U.S.S.R. and Japan, will seep through the shores of the Americas, hidden and enmeshed within the waves.

Drift occurs upon journeys through the Pacific but also contests the instability of borders between ecosystems and nations. The notion of a stable boundary — built up by a chain-link fence between nations or the mapped delineation of bio-physiographic zones — is undermined by the abiotic-fueled drift that permeates both discursive and physically instated borders. Wind and birds transport seed between ecosystems. Rivers and coastal waters continue to flow through the border, depositing materials and sands downstream. Dead trees that float downstream rivers

sustain a wide range of ecological communities. Almost 70% of the organic matter of fallen trees remain in streams to act as habitat for caddis flies and mayflies which become food for salmon fry, salamanders, bats, and birds (Payton 2018). Large logs alter stream flow, creating eddies where salmon can rest and spawn (Payton 2018). When driftwood settles along the shore, it can trap seeds among silt which creates new vegetation, feeding primary consumers and then their predators (Payton 2018). Wood that makes its way into estuaries become shore bird perches and rafts as well as nurseries for herring eggs (Payton 2018). Drifting occurs between terrestrial spaces just as through the Pacific Ocean. In destabilizing national and ecological boundaries, the drift decenters the human migratory subject, offering supplementary routes of transpacific interaction. The drift has continuously carried relics and living entities of Asia onto the North American and Pacific Island shores. Nao's journal reaches Ruth through the drift. The drift forces us to reconsider the bounds of Asian America and to acknowledge the uncontrollable seepage of material through constructed borders.

Exchange

Unlike drift which occurs despite anthropogenic attempts to curtail movement, exchange occurs because of the desire for extranational materials, driven by an Orientalist longing for the Other or a capitalist need for outsourced labor and markets. Asian immigration to the U.S. can be roughly subset into two periods of time — pre-1965 and post-1965. The Immigration and Nationality Act, passed in 1965, significantly altered the populations and demographics that formulated the Asian American populace. At the time of 1965 Immigration Act, most Asians in America were born within the United States. Through the early 20th century, many were Chinese, Japanese and Filipino men working as laborers or in service and many were concentrated in

along the West Coast or in major cities (Song 31). The Immigration Act of 1965 abolished the national-origin quotas and exclusion acts of the early 20th century and encouraged immigration for professional classes and to reunify families (*Immigrant Acts* 7). Post-1965 immigration, heightened by the U.S. involvement in the Korean and Vietnam Wars, is often marked by the encouragement of Asian immigrant women's labor in the U.S., the increases of immigrants from "societies already disrupted by colonialism and distorted by the upheavals of neocolonial capitalism and war" alongside a professional-managerial class of "white-aligned" Asian immigrants, coined as the "model-minority" (*Immigrant Acts* 16, Song). Within the novel, we can piece together fragments of these histories — Ruth's mother's family went through internment and is a product of these early 20th century histories of exclusion while Nao and her family are products of the post-1965 encouragement of professional-class immigrants and their families. It is through the institutionalization of immigrant "inclusion", or the legal encouragement of exchanges of human capital through the 20th century, that these distinctive constructions of Asian America have form and continue to change. The legislative enactment of citizenship and immigration upon Asian American populations is built upon a desire for a malleable, out-sourced capital (*Immigrant Acts*). Thus, the permitting of legal routes of immigration is embedded in desires to build economies and strengthen the national polity.

Exchange further describes the trade relationships through which materials and nonhuman organisms have been ferried between Asia and North America. For instance, logging within Japan and the Pacific Northwest was utilized by each nation to foster trade relationships, increase imperial influence, and rebuild after World War II. Japanese cedar is sold ornamentally and as a construction material within British Columbia. The Japanese garden, which can feature sugi, was introduced through the imperial exhibition of Japanese gardens in World Fairs and

encouraged by a Western fascination with the aesthetic of the Orient, marking complex transnational exchanges of living material. Alternatively, the sugi plantations of post-war Japan were disregarded for the wood from Southeast Asia and the Pacific Northwest coast. The U.S. Representative, Peter A. DeFazio, of Oregon introduced a bill that would ban the sale of logs to foreign counties, stating that "The Northwest is basically the last colony of Japan" (qtd in Egan 1988). The Japanese consumption of Pacific Northwest wood (Douglas-fir, western hemlock) was largely driven by wood-housing demand that outpaced available Japanese supplies of softwood. Western hemlock was even cited to resemble "that of the favored Japanese domestic species Sugi" (Daniels 2005). The rebuilding of Japan's infrastructure and nationhood in the postwar period was reliant on wood from the American coasts. In a similar sense, the ecological colonization of the Americas required the introduction of aesthetic and productive Asian flora and persons. Thus, the exchanges that have constructed Asian/American naturecultures reside within the desire for racialized capital and citizen and the imperial aspiration to gain power on the global stage.

Invasion

Invasion discourses differ from both exchange and drift as invasion assumes the penetration of a once stable space by a colonizing, destabilizing force. Invasion dually exists as a condition of settler colonialism within the Americas and as a discursive production intent on maintaining white supremacy through the conditioning of Asian nonhuman/human flesh as irreducibly alien. As Candace Fujikane elaborates in the edited volume *Asian Settler Colonialism: From Local Governance to the Habits of Everyday in Hawaii*, she finds it essential to locate Asians within Hawaii as "settlers who participate in U.S. settler colonialism" to

"acknowledge the ways that they are beneficiaries of U.S. settler colonialism… [and] were…active agents in the making of their won histories and unwitting recruits swept into the service of empire" (Fujikane 7). Settler colonialism seeks to extract, replace, and eliminate what preeminently exists with the colonizing materials. Breaking free of settler colonial schematics requires a radical reconsideration of what it means to respect indigeneity while also acknowledging migration in a continuously changing world. Studying settler-Indigenous dynamics has been critical to parsing out the disruption and destruction enabled by European colonial encounters. However, it is unable to fully reconcile nonwhite migration which hybridizes with both discourses of indigeneity and settler-whiteness. Iyko Day questions that "in a binary framework of settler colonialism — where one is either a settler or an Indigenous person — are slaves, indentured laborers, or refugees 'settlers', despite the involuntary context of their migration to North America?" (Day 19). There are modes of settlement within Asian America and the United States more broadly which do not fall neatly into categorical oppositions of "settler colonial" and "native American" but draw from both.

Upon the mainland U.S. and within Canada, it is important to dually acknowledge Asian immigrant and Asian American roles in the maintenance of the U.S. settler colonial empire while remaining aware of discourses of "alienness" that sculpt Asian America into formations of racialized labor in the U.S. capitalist imperial project. Iyko Day argues that "romantic anticapitalism offers… an ideological framework for settler colonialism to respond to economic and technological crises by imagining whiteness through indigenizing tropes of purity and organic connection to land that function to distort and deflect responsibility for capitalist modernity" (Day 36-37). The positioning of postcolonial immigrants, Asians or otherwise, as alien settler colonialists continues to link whiteness to a romantic, rightful possession of land

while expunging the histories of eradication and removal of Native Americans. Indigenous presences are permanently overwritten by the legacy of white land ownership. Imperialist exchanges of transnational human capital are rewritten as alien invasions of a stable state.

Ecology, as a science, has perpetuated these claims of nativity asserted by whiteness as apart of ecological hegemonies. Indigenous knowledges of ecosystem management were eradicated through the forced land dispossession and relocation required to create national and state parks. These traditional forms of ecological knowledge have been overwritten by the reliance upon Western scientific methods as the only form of "real science". Additionally, the preserved wilderness spaces prioritize whiteness. A Conservation Science Partners report found that there are fewer natural spaces near where Black, Latino, and Asian American communities live (Shea et al. 2020). Entry to the outdoors for people of color has historically been barred by legal segregation, violence, and exclusion from the U.S. conservation movement (Shea et al. 2020). Furthermore, low-income and minority populations disproportionately live in areas which experience environmental hazards. The field of ecology is characterized by severe underrepresentation of students and scholars of color (O'Brien et al., 2020). When we consider what type of native and natural ecosystem have been historically preserved by ecology, it is clear that discourses of invasion surrounding Asiatic species helps redistribute accountability for environmental degradation, the forced removal of indigenous peoples and knowledges, and American capitalist systems which rely heavily on transnational labor.

Thus, even as many invasive species have been brought to North America through modes of exchange, they are figured as "invaders" of native space. It is insufficient to simply consider invasive species as biological settler colonialists however it is also insufficient to disregard the role invasive species play in the large-scale species extinctions occurring as apart

of anthropocentric change. Ecological imperialism, as coined by Alfred Crosby— the multispecies violence which divested indigenous populations within the Americas of their land and their histories—has been cited as an essential tool in the history of New World colonization. As Mastnak et al. (2014) state, "settler colonialism was always about the 'settling' of plants as well as people… This colonialism… entailed the productive of a landscape… the literal planting and displanting of peoples, animals, and plants". However, I disagree with the Mastnak et al. (2014) proclamation that the eradication of invasive species is a decolonial mission (Mastnak et al. 368). I contest, that we must understand the alien species used within ecological colonization as historically formed and intentionally introduced by the settler colonialist project. We additionally need a more-than-human understanding of invasion to understand the dynasticism of changing naturecultural communities that are both altered by intentional exchanges for global capitalistic and imperialist purposes and by abiotic drift and uncontrollable movement.

Hybridization

Furthermore, it would be remiss to discuss the fears regarding invasive/native species hybridization, between the native and nonnative crow or the native and nonnative barnacle, without discussing the discourses surrounding miscegenation within the Americas and the complicated binds within and upon interracial relationships. Ruth, herself, is the product of a Japanese mother and an American father, and is married to a German American man, Oliver. Of course, the racist feelings towards miscegenation do not parallel plant species hybridization as race has been socially constructed to justify European colonialism and structures of white supremacy. However, the similarities between the fears of miscegenation and of nonhuman hybridization provide insight into the socially-produced understandings of species evolution.

Fears of invasive/native species hybridization mirror the perceived terrors of "yellow peril" and the upholding of the "model minority" within the Asian American populace. Anti-miscegenation laws directed toward Asian Americans in the early 20th century were produced by senses of yellow peril and "shaped by a need to police the sexuality of a primarily male immigrant labor force" with "only marriage to Asian male aliens that carried the singular penalty of stripping white women of their citizenship" (Koshy 6, 1). Susan Koshy, in her book *Sexual Naturalization: Asian Americans and Miscegenation* coins the term *sexual model minority* to describe the duel-edged positionality of the Asian American woman in the postwar period. As erin Khuê Ninh expresses, "it is to the Asian immigrant family [or woman] that the white mainstream looks, as if for a vaccine to halt the anxious decline of the white nuclear family" (Ninh 170). On the other hand, she is still trapped within the bounds of yellow flesh, "an object-person who is radically undone yet luminously constructed — that is, meticulously and aesthetically composed yet degraded and disposable" (Anlin Cheng 1). In the corresponding mechanisms through which hybridization occurs within nonhuman organisms, the racist love and racist hate similarly emerge (Bow 2022).

Just as Anne Anlin Cheng and Leslie Bow take up the transference of this racist love/hate onto Oriental objects and ornaments, I argue we must also consider the nonhuman organism — the plant, the animal, the virus. Many of the introduced flora and fauna — agricultural, horticultural, and invasive — were invited within the nation and domesticated to construct the ornamental and agricultural U.S. landscape. Dr. Douglas Fairchild, director of the USDA's Seed and Plant Introduction section, introduced over 80,000 fruit, vegetable, and other plants to the U.S. in the early 20th century — Hawaiian avocadoes, Indian mangoes, Egyptian onions, Japanese bamboo, Chinese soybeans, and the Chinese peaches (Cardozo and Subramaniam).

However, there remains a fear of the colonization by introduced species of the native nature that exists just outside soybean plantations and apple orchards. There is the celebrated Georgia peach or Japanese cherry trees lining the National Mall and then there is the scorned Asian Carp or Emerald Ash Borer — what is welcomed in and what escapes from these "welcoming" arms. And when, these "unwelcomed" entities hybridize with what is considered native, when is that hybridization and reproduction encouraged and when is it actively halted?

The reproduction of plants and animals with what is considered native is feared, revealing a discomfort with the integration of alien capital into the natural landscape which we revere. Nonnative crops are pumped with pesticides, herbicides, fertilizers, and genetically modified to become the most productive source of labor. The labor of these "invited invasions" has been essential to the agricultural and physiographic construction of the American landscape and economy. However, productive nonnative agricultural crops, such as soybeans, or erosion-control measures, such as kudzu, are vigorously managed to limit their contamination of the native landscape. Species hybridization does critically alter the evolutionary futures and success of native species that have coevolved amongst each other for millennia. However, the implications of hybridization are situation dependent as gene pool mixing has been found to either increase or decrease the fitness of future generations (Edmands et al. 2004). However, we must be wary of how decreases in fitness are construed. Daniel Simberloff, in an article on the threat of nonnative/native hybridization, alludes to how critiques on hybridization "would have resembled a brief for racial purity" citing that "we are taken aback, as when Lever writes of mallards, 'the adulteration of the blood of a native species by that of a genetically superior alien is always to be deplored'" (Simberloff 1996). However, Simberloff rationalizes the difference because he "doubt[s] that many conservationists worry about mixing human races… [and]

humans generally choose their mates" (Simberloff 1996). However, while most conservation biologists may not be explicitly racist, these fears of hybridization cannot be seen as entirely separate from miscegenation concerns as what we determine biologically is dependent on sociocultural values and what we construct culturally draws from science.

Returning to the Crow: Towards Transpacific Ecologies of Abundance

Through continuing to trace the Jungle Crow, transpacific ecologies that center abundance are revealed by the possibilities put forth by the crow's highly adaptable behavior and capacity for change. The last chapter finished with a discussion of the Japanese Jungle Crow (*Corvus japonesis)* as resembling an envisioned futurity which sees Pacific as a permeable and transformational space rather than a fly-over zone or a waste repository for what we would rather remove from our consolidated nation-states. Drift, exchange, invasion, and hybridization presume that migration is zero sum game where the intruding being imposes scarcity attributed to the native space. Invocations of indigeneity and invasivity are essential in preserving these interpretations of migration. However, the crow does not project a synthesis of these migratory trends but highlights an alternative construction of migration which emphasizes abundance for all, transpacific collaboration, and extranational existences.

The Jungle Crow's willingness to eat almost anything interweaves the terrestrial and the pelagic, the urban and the rural, the nation and the planet. The Jungle Crow has become a facet of urban Japanese ecologies, through its acclimatation to human space — creating nests out of wire hangers and upon power lines disrupting the Japanese power grid, feasting from cow manure piles and zoo feed, and dominating urban areas (Shōei 2021). While we can understand pests and weeds as what we cannot eradicate, domesticate, and control in our urban centers, the

Jungle Crow takes advantage of the naturecultural abundance that still exists within cities. The humans living in these cities have had to adapt their behavior (carrying umbrellas, stopping wearing shiny clips) to accommodate these birds. And yet these adaptations are distinctive of the capitalist, post-industrial society that dominates human civilization today, suggesting what it means to evolve and adapt has become majorly modified by access to consumer goods and industrial manufacturing processes for the crow and for the human. When many of our contemporary experiences with the natural world are with ladybugs and four-leaf clovers and earthworms and our pets, we must learn to see the naturecultural abundances and transcorporeal collaborations within the built environment and the "natural" environment.

Beyond the urban space, the Jungle Crow reiterates transgressive relationships between ecosystems, transcending the idea that resources are located within closed systems and can only be utilized by those within the system. Instead, the crow forces us to reckon with the implicitly migratory networks that provide the resources for our day-to-day existences. The large-billed crow (of which the Jungle Crow is a subspecies) has been found to graze upon deceased sharptail sunfish stranded upon beaches in Fukui Prefecture (Sawai and Yoshida 2019). The crow's omnivorous, scavenging, non-selective tendencies, lead it to feed upon the fish, typically unfamiliar to northern Japan. The crow may go onto defecate in the sugi forests, moving crucial nutrients from the ocean into other ecosystems, enriching species within the forests with supplemental marine limiting nutrients. As ecological research continues to discover, these attenuated nutrient webs that transcend borders and ecosystem boundaries are more common than we once thought. The crow's shore scavenging reveals that postcapitalist abundance is something shared rather than controlled and restricted to a select few.

In the long-term, the recent absorption of the Northwestern Crow (*Corvus caurinus*) into the American Crow (*Corvus brachyrhynchos*) offers a futurity of abundance-oriented migration for the Jungle Crow. As Oliver remarks within the novel, "the crow native to these parts is *Corvus caurinus*, the Northwestern Crow. Almost identical to the American Crow, only smaller" (Ozeki 54)[62]. A study by Slager et al. (2020) determined that while speciation did occur some 440,000 years ago when the late-Pleistocene glaciers separated the crow populations, when the glaciers receded, the two crow populations hybridized consistently ever since[63] (Slager et al. 2020, Swift 2020). The recent scientific merging of the American Crow and Northwestern Crow species reminds us firstly, that these species delineations are based within human understanding and secondly, that these categories are constantly in flux. In the potential migration of the Jungle Crow to British Columbia, hybridization could occur which should not be seen as the degradation of a previously "pure" native bird species but another node in the continuing complexities of ongoing evolution. In this longstanding projected future for the Jungle Crow, coevolution beyond and because of anthropogenic influences will occur.

Through the Jungle Crow, we arrive at ecologies of abundance that are influenced by national and imperial histories but do not abide by them and instead seek a transpacific time being ecologies grounded in place. As we piece together narrations, constructions, and histories that have formed Asian America and often rely on remnants of settler colonial capitalist understandings of time being, we can look towards the array of time being centered possibilities presented within the novel — Nao's family's return to Japan, Haruki #2's alternative to Silicon Valley's dedication to the military industrial complex, the withstanding of ancient indigenous

[62] To clarify, the Jungle Crow is not morphologically similar to the Northwestern or American crow.
[63] In fact, scientists found no pure individual in any of the crows shared range through Washington and B.C. Slager et . further did not preclude that human-modified habitats may have driven hybridization as well.

clam beds alongside Asian Pacific oysters, Oliver's Neo-Eocene forest and interspecies hacking, the rebuilding of the Miyagi coast following 3/11, and the Japanese Jungle Crow's spiritual and physical journey through and within the Pacific. Time being ecologies and the entanglements between them construct and are constructed by Asian/American naturecultures, expressing Asian America as beyond the bounds of the human, the settler, the alien, or the American nation.

Conclusion

Perhaps as a consequence of being named Iris and having been born in May, I have always felt an innate connection to flowers. As I finish this thesis, it is springtime in Atlanta. The spring-ephemerals and not-so-native flowers are blooming throughout the city — the bright lilac cascades of Chinese wisteria that cover roadside trees and telephone poles, the teensy purple violets scattered throughout park lawns, the pinkish redbud flowers dotting trees, and the delicate blossoms of bloodroot and dimpled trout-lilys emerging through last autumn's leaf cover. But each of these blooms holds a disparate relationship with the city and its inhabitants. Chinese wisteria (*Wisteria sinensis*) is a disparaged invasive, but one must admit that its dangling purple flowers, the reason for its import from China, are second to none. Chinese wisteria can twirl and climb into the tree canopy, shading out trees and shrubs ("Wisteria Sinensis"). The lawn violets (*Viola sororia*) (see Fig. 2) are native to the Eastern U.S. and used as a lawn and garden plant as well as historically used medicinally by Cherokee peoples. However, their persistent growth also leads them to be considered "aggressive and invasive weeds", scorned by home gardeners ("Controlling Wild Violet Weeds in the Lawn"). There are concurrently non-native Asian and European violets that intermingle with native violet populations (*Viola odorata*). The Eastern redbud (*Cercis canadensis*) (See Fig. 2) is similarly a native tree for the Southeastern United States, but is well-loved and found within the "wild" forests and commonly planted throughout parks and gardens. The bloodroots (*Sanguinaria canadensis*) and dimpled trout-lilies (*Erythronium umbilicatum*) (See Fig. 2) are both spring-ephemeral flowers, appearing upon the forest floor before the canopy trees leaf out in the later spring months. I, personally, have spent many moments in awe of these tiny flowers — only visible to those who look for them. Both of these species are sensitive to disturbed habitat and are mostly found within old-growth forest and

thusly are threatened by the imposition of species like Chinese wisteria and Chinese privet. In my last spring in Atlanta, I have tried to spend as much time as possible appreciating and watching out for these flowers — invasive, nonnative, native — and understanding the naturecultural histories that have embedded them within the Atlanta landscape. Through this thesis, I have aimed to assess, through *A Tale for the Time Being*, where these permutations of invasivity emerge within literature and ecology, formulating Asian/American naturecultures that acknowledge settler colonialism and indigenous studies and praxes.

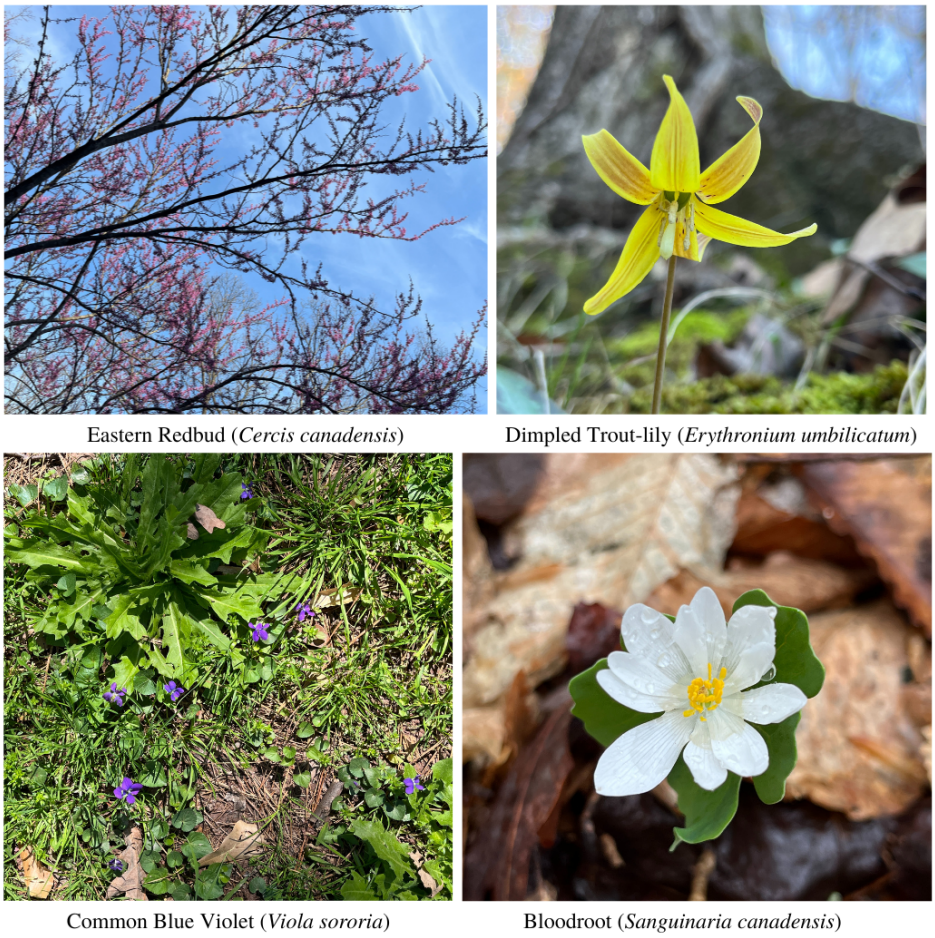

Figure 2: Pictures of spring flowers taken by Iris Chen (2023)

What I find so meaningful about this work, which echoes my attempts to understand my place within Emory and Atlanta, is its reliance on critically understanding the naturecultural

landscapes. I believe that through a deeper knowledge of the ecologies and histories of the places we inhabit, we can intimately assess human and more-than-human existences and envision sustainable, abundance-oriented futures that rely on these observations. Every morning when I walk through Lullwater, listening to the birds call and observing what has begun to bloom, I learn a little bit more about this place. When I read a novel or a journal article about the Atlanta highways or school systems, I learn a little bit more about this place. As I talk to folks while planting trees or removing invasive species, I learn a bit more about this place. Mingling my observed knowledges with my learned knowledges, I find myself more familiar and comfortable in Atlanta. To express this learned naturecultural place-building, Robin Wall-Kimmerer, renowned indigenous ecologies scholar, expresses that "being naturalized to place means to live as if this is the land that feeds you, as if these are the streams from which you drink, that build your body and fill your spirit" (Kimmerer 215). We must acknowledge that our presence upon a place impacts the more-than-human atmosphere and that the nonhuman infrastructure and ecologies affect our sense of belonging. We pick flowers and plant flowers and take photos of the Japanese magnolia on the quad. We modify this world and this world modifies us.

I do, however, push back on her notions that "to become naturalized to place" requires that one "throw[s] off the mind-set of the immigrant" and "unlearn the model of kudzu" as I find that these discourses of invasion that shroud the Asian American human and nonhuman immigrant arise from the legacy of white settler colonialism and racialized capitalism in the Americas. Instead, I advocate for a praxis that seeks to recover and acknowledge our part in the violent erasures of indigenous knowledges and the stains of U.S. imperialism within Asia and to find place through all the naturecultural landscape of all species of flora and fauna — the red-tailed hawks swooping across the quad, the mimosa tree flowers in late June, and the cucumbers

in your mother's garden. In rediscovering kinship and interconnectivity with the presumed distant natural world, we become intimately intertwined with our impacts on this posthuman planet. The bloodroots, the wisteria, the violets, and the redbud trees are all parts of the Atlanta landscape. I do not advocate against forest restoration as there is a storied history of forest management and integration of humans within the forest. However, I do push for more mindful practices, which acknowledge the change we are undertaking, the painful histories embedded within the soil, and do not utilize one-size-fits-all solutions for all areas. My professed goal is not for people to become indigenous or even naturalized to place, as suggested by Kimmerer, but for people to build place-based naturecultural knowledges just as I have done in uncovering Asian American transpacific ecologies within this thesis. As our climates and ecosystems continue to change in ways we can stall and ways we cannot, becoming in tune to how our local surroundings are adjusting, collapsing, or resisting gives us strategies to pursue justice-based naturecultural resilience and perseverance.

I am a product of naturecultures myself. My name is Iris. I was named after my mother. My mother's name is Zhao Jianhong, the rainbow. A child born in New London, Connecticut, named after a Greek goddess, to Chinese parents. In my understanding, Chinese names are usually adjectives and nouns which hold weight and sculpt a child's future. As the first-born child, to be given the rainbow is to cling onto my mother's name, to some semblance of China in Asian/America. My favorite flower is the iris. My parents plant iris bulbs in their garden in suburban Massachusetts. The Atlanta Botanical Garden plants irises every spring which bloom in May. I was born on National Iris Day (May 8th). Vincent Van Gogh painted *Irises* (1889). I do a paint-by-number of Vincent Van Gogh's *Irises* (1889) to hang on my college apartment walls. I do research on Chinese privet, a small invasive tree in Atlanta. My parents are native to the lands

that Chinese privet is native. The fleur-de-lis is the stylized iris and the symbol of the Kappa Kappa Gamma sorority. In my freshman year of college, I participated in Greek rush and was dropped by the Kappa Kappa Gamma sorority. *Iris oratoria*, the Mediterranean mantis, is invasive in southern California and is known for cannibalistic behavior and threat displays. I drove through southern California in my father's old car and hiked at Joshua Tree National Park when I moved to the other side of the country in 2020 alone. The iris is the colored part of the eye. The iris is named after the Greek goddess for the rainbow, for the many colors of the iris (the Western iris). My eyes are deep and dark, almost reflective, closer to black than brown. There is no color in my eye. Iridium, the chemical element of the atomic number 77, was discovered in 1803 and named after the Greek goddess, Iris, for the diverse colors of salts. Iris, Greek goddess of the rainbow, messenger to the gods, daughter of Thaumas and Electra, has no unique mythologies of her own or cult of worship around her. The rainbow is a meteorological phenomenon when it's both rainy and sunny and a spectrum of light appears in the sky. She/it lives on in the flower, the eye, the mantis, in my mother, in me.

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