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The Rabbits of Okunoshima:
How Feral Rabbits Alter Space, Create Relationships,
and Communicate with People and Each Other

When I was first invited to the *Text, Animals, Environments* conference, I assumed that I was invited by accident. What do I know about animal or environmental poetics? I am an anthropologist, not a literary scholar. But it turns out, after educating myself about zoopoetics and eco-poetics, that I might have something to contribute to the field. In particular, I thought that I might write on a topic that I have been working on for the past two years: a large group of feral rabbits living on an island off the southern coast of Japan's main island, Okunoshima.

If *poiesis* refers to *making*, for me, zoopoetics refers to the ability of other animals to make or create gestures, texts, and environments. As a cultural anthropologist who specializes in watching animals (primarily rabbits) in a variety of environments, and who attempts to translate what it is that these silent and seemingly inscrutable animals mean and say, I became intrigued by the idea that rabbits, like people, might possess the agency to alter and even *create* their environments in meaningful ways. Do these rabbits intentionally exploit the conditions under which they live in order to create the lives that best suit them? To me, these ideas are a given; but could they be shown using this particular case study? And finally, I would like to explore the (largely negative) environmental impact that the rabbits have had on the island, and the role that humans play in enabling that impact.

Okunoshima

In March of 2015, I took a group of students¹ on a research trip to Okunoshima, known to many as “Rabbit Island” or *Usagi Shima* (in Japanese), because of the large number of rabbits who live there. We wanted to use multi-species ethnography (cf. Kirksey and Helmreich 2010 and Hamilton and Taylor 2012) to explore how the rabbits' lives are affected by their

¹ I would like to thank Cassandra Bugir, Kotoyo Hoshina, and Kanae “Koushi” Takahashi for their participation in this research.

contact with the tourists who visit the island, as well as why the tourists are drawn there in the first place.

Because of its relative isolation, after World War I, the Japanese government chose Okunoshima, which was (and is) uninhabited by people, as the location of a major poisonous gas factory. In total, 6,616 tons of mustard gas were produced on the island from 1929 until Japan's defeat in 1945.² Japanese white rabbits³ served as test subjects for the gas; some people think these rabbits were set free on the island to act as the proverbial canaries in a coal mine, alerting observers (through their deaths) to dangerous levels of gas on the island, while others think they were simply used as laboratory test subjects.

In the 1970s at the latest, Japanese visitors began visiting Okunoshima in order to learn about the island's grim history. Today, visitors tour the ruins of the factory and munitions, and visit the island's Poison Gas Museum. Tourists can also visit the island's hot springs and can camp or stay in a large hotel on the island (before the facilities were destroyed by the rabbits, visitors could also play golf and tennis). There are no permanent human residents on the island; even the workers take the ferry to the island to work each day.

The current rabbits are most likely 80th generation descendants of a group of eight rabbits who were abandoned on the island by a group of school children in the 1970s; it is unknown whether any of the rabbits who were gas test subjects survived the end of the war.

Three years ago, a video was uploaded to YouTube⁴ that shows a young tourist from Hong Kong being chased by a large herd of island rabbits, who were demanding food from her. This video quickly went viral, with more than two million people viewing it, and, according to our interviews, leading to countless people visiting Okunoshima to experience the rabbits first hand. This video's popularity followed on the heels of an earlier rise in Okunoshima's popularity during 2011, the Year of the Rabbit, when the island also experienced a great deal of media exposure. These two media events—the Year of the Rabbit and the YouTube video—are directly responsible for the conditions in which the rabbits now find themselves.

² The military went as far as erasing the island from unclassified maps in 1938 to protect its location, and much of the island's history is still shrouded in mystery today.

³ Which are similar to New Zealand whites, the dominant species used in animal research and testing in the west today.

⁴ <https://www.youtube.com/watch?v=RdeX4NqvDZw> (Web. 15 May 2018).

The media exposure led to a surge in visitors to Okunoshima, which itself caused a surge in the rabbit population—from about 400 five years ago to about 1000 today, based on our interviews with island staff and long-term visitors. Because the island (which lacks water and only has a four-Kilometer circumference) cannot comfortably support that many rabbits (and there are no natural predators), the rabbits have now resorted to begging for a living. Tourists today, which include large numbers of foreign visitors, come less frequently for the military history and more frequently for the rabbits—to feed and photograph them. Tourists journey to the island on a ferry from the mainland, weighed down with vegetables, fruits, and rabbit pellets, as well as bottled water for the dozens of plastic and metal bowls scattered around the island.

The Rabbits

The rabbits of Okunoshima,⁵ whose ancestors were abandoned on the island at least forty years ago (and perhaps as long as seventy years ago), have had to adapt to a remarkable existence—one that is equally constrained by the physical environment in which they find themselves as it is by the humans who interact with them on almost a daily basis. And at the same time, they have carved out a life for themselves by both altering their environment and manipulating humans to care for them.

These rabbits are not especially well suited to living on the island—they are, after all, a domesticated species, and their wild relatives come from a very different environment.⁶ Nor are they especially well suited to making their living by interacting with humans. They are a prey species and the relatively short amount of time that they have been domesticated⁷ has not eliminated the flight response from the species. In fact, during most of rabbits' history with humans, they lived not with humans, like dogs and cats, but outside of human homes, being kept, for the most part, for food and fur. It was only in the last 150 years that they have been kept and bred as pets.

The rabbits who live on Okunoshima are liminal animals—they live in an uneasy space between the domestic and the wild. They are not native

⁵ The rabbits are domesticated rabbits of the genus and species *Oryctolagus cuniculus*. This is the only domesticated species of Lagomorph on the planet.

⁶ The Iberian Peninsula and northwest Africa.

⁷ Rabbits were domesticated only 1500 years ago; they are one of the most recently domesticated of all domesticated species.

to Japan,⁸ and are not even wild. But they have had to utilize some of the behaviors that their wild European cousins use to survive—like digging elaborate burrows—as well as the species’ famously prolific reproductive abilities⁹ which now serve them well. These rabbits build homes, create communities, defend territorial boundaries, find friends, mate, and rear babies—all without any human intervention.

But at the same time, because there is not enough food or water on the island to support all the rabbits, they have shed the cautious aspects of their nature in favor of an almost shocking level of aggressive friendliness—they are friendlier, in fact, than many pet rabbits. This is how they feed themselves—by begging.

In an article in *Humanimalia*, Aaron Moe notes that it is common for those within the field of ecocriticism to minimize the role that non-human animals play in interacting with humans. He writes, “[t]hese fundamental definitions in ecocriticism assume that the human is the one who engages the ‘non-human,’ thereby eclipsing how nonhuman animals also engage other beings and environments.” He continues, “what if other animals also dwell on the earth, cultivating a sense of place?” (29). Okunoshima’s rabbits have done this. They are the creative agents of their own lives, and not only determine the ways in which they live but have influenced the lives of humans around the world with their presence on the island and in the media.

Making

The rabbits of Okunoshima live lives that are both wild and non-wild. Like European wild rabbits, they dig their burrows into the mountain in the center of the island. The perimeter of the island, which is surrounded by a walking trail, is where the rabbits hustle for food during the daytime. At night, when the visitors are gone, most rabbits retreat to their burrows, where the mothers also rear their young. Some mothers, on the other hand, build their burrows in small hills along the well-trafficked walkways. These burrows are much more vulnerable to human disturbance, but also make it easier

⁸ The only indigenous Japanese rabbit, the Amami rabbit, lives on a different island and is currently threatened with extinction by two species that have been introduced to their habitat: cats and mongooses.

⁹ Rabbits are induced ovulators, meaning they ovulate in the presence of a male and are effectively receptive at all times. They can give birth to litters as large as twelve kits every twenty-eight days and can get pregnant the day they give birth.

for the mothers to beg for food while still protecting their young. Both wild and domesticated rabbits are crepuscular, which means they are most active at dawn and dusk. Island rabbits, on the other hand, have become largely diurnal, building their daily activities around the ferry schedule.

But the rabbits are not equally friendly, nor do they all behave the same. The rabbits have exploited the different ecological zones on the island and have created a number of different socio-zones which overlap those eco-zones. For instance, the rabbits on the north and east sides of the island, as well as in the central mountain region, which are overgrown with tropical trees and shrubs and are less accessible to humans, are much shyer than those on the more accessible (and arid) sides of the island. Those living outside of the hotel and at the pier are the most friendly and aggressive, because of the easy access to guests.

European rabbits are a highly social species, preferring to spend the majority of their time in the company of their compatriots. They are non-vocalizing animals, so they use their bodies—the movements of their ears, tails, legs, and bodies, their tongues and teeth, and their scent glands—to communicate their needs and desires to others. They box, grunt, pee on each other and on their surroundings, climb, dig, and stand on two legs. All of these gestures both express their emotions and have an impact on others. Even the ways in which they sit or lie, often lightly touching the body of a friend, express their emotions. But on the island, many of these gestures are extended to people as well. What my students and I witnessed is a mutual understanding on the part of the human and lapine interactants: Both are aware, at least in part, of the “other’s” motivations, and act accordingly. The rabbits know, for example that the visitors are not here to hurt them; they are here to feed them, while workers mostly ignore them.

Okinoshima’s rabbits are social actors who are able to define and re-define the nature of their relationships, which they do each day, treating, for example, visitors to the island (who most likely have food) differently from workers, who do not. The rabbits listen for the sound of humans approaching their communities, and then hop towards them, stopping only at the edge of their territory to wait for them. They stand on their hind legs, climb on the visitors, and tug at their clothing. Even the babies are now completely unafraid of people and beg just like the adults (and are also subject to being injured or stolen). I am not unaware of the fact that there is a vast power differential between the rabbits and the humans; I just want to make clear the fact that the rabbits are active participants in these exchanges.

We think that there are approximately 1000 rabbits on the island, who live in thirty-nine separate colonies.¹⁰ The colonies appear to be kinship-based, at least in part, with young rabbits of both sexes most likely staying in their natal communities. But we also found two groups that appeared to be breed-based, made up primarily of either angoras or silver martins—rabbits who were probably abandoned with their families in recent years and continued to live and reproduce together.

The rabbits, like their wild European cousins, are committed to their territories, and mark them by creating large feces piles, which are usually found in the middle of the daytime territory. While in the two most high-traffic areas, near the hotel and the ferry, there was some overlap between colonies, for the most part the rabbits do not stray far from their home territory. Clearly, the rabbits know not only their territories, but also which members make up their communities.

My students and I concluded, based on body condition and behavior, that the rabbits are overwhelmingly young, with the vast majority under two years old, and a large number are babies and pregnant females. This means that birth rates are very high, but so are mortality and morbidity, resulting in an overwhelmingly young population.¹¹ According to a hotel employee, about fifteen rabbits die per day, and their bodies are picked up and disposed of by hotel staff so that visitors cannot see them. The rabbits were suffering from a variety of illnesses and injuries. Of the rabbits that we counted, twenty-six percent had visible injuries or illnesses, and the rabbits living near the hotel were both the sickest and the most injured, thanks to competition over food—approximately half of those rabbits were clearly unhealthy or hurt.

While the rabbits are dependent, at least in part, on the food brought by humans, this food also contributes to the short life spans of the rabbits. Much of the food is not species-appropriate, and because it comes in large quantities at some times (Saturdays during the summer, for example), and rarely at other times (winter, rainy days), the rabbits lack the consistency that is needed for their delicate digestive systems. Thus, one common cause of death is gastrointestinal stasis, because of the overload in unhealthy and inconsistent foods.

¹⁰ These numbers are based on our own counts; no other research has been conducted on the rabbits of Okunoshima.

¹¹ This is similar to wild rabbits who, because of predation, only have a one-to-two-year life span. Domesticated rabbits who live in a home, on the other hand, can live to be ten to even fifteen years old.

Problems

Agustin Fuentes has written about what he calls “domesticatory practices” (124), referring, for example, to temple monkeys in Bali and the heavy amount of interaction that they have with humans there. He notes that monkeys who live in long-term zones of sympatry with humans end up sharing social and cultural relationships with those humans.

In the case of Okunoshima, the rabbits were already domesticated prior to their arrival on the island. I would suggest that these rabbits have experienced both a re-wilding, in which they re-learn the behaviors of their wild cousins, but also a re-domestication, in which they adapt themselves to their human visitors. But unlike Fuentes’ monkeys, these rabbits are not living in a human space. Rather they are living in a wild space which they have shaped to their own needs—with burrows carved into the mountain, feces piles to mark territory, urine marking of their space and their comrades, and competition over who controls the most desirable territories—i.e., those with the most access to humans. They don’t live at the borders of human society; they have created a new society to which humans have been drawn, through the consumption of media about Okunoshima. In the process, these rabbits, and the humans who inadvertently created the situation in which they live, have co-constituted a unique landscape and animal-scape. This space—inhabited primarily by animals, with humans as visitors—is a landscape occupied by rabbits who act autonomously, demanding what they need from the humans who travel across the world to give it to them.

Yet the rabbits are also aliens. They did not evolve on this island and have destroyed some of the natural vegetation there. Because of this, there are those who argue that the rabbits should be destroyed, or at the very least heavily controlled, in order to let the island go back to its “natural” state—which now includes the ruins of the gas plant, a hotel, a museum, a visitor center, a golf course, tennis courts, a campground, and paved roads and trails. These aliens are not living in a fully human space; but because this space has been claimed by Japan as a site of national remembrance, those needs are now in direct conflict with the needs of the rabbits—and the tourists who love them.

This is far from the first time that European rabbits, both prized and hated for their reproductive abilities, have been seen as an “invasive alien species,” with all of the governmental and conservationist concern that this label carries. Whether these concerns are about the impact of the species

on biodiversity, native species, or the economic goals of the administrators, rabbits often pay the price after they have been introduced to a new area.

The most well-known example of “rabbit as invasive species” is the case of the European rabbits introduced to Australia in 1788 as food animals, and again in 1859, when they were released into the wild for hunting. As most people now know, the rabbits thrived in this new environment, and, as their population exploded, so did Australian farmers’ concerns, as the rabbits ate millions of dollars worth of crops. The result has been the reclassification of rabbits from game to pest, as well as innumerable strategies—all violent—aimed at curtailing the animals’ numbers. These include poisoning, trapping, shooting, warren ripping, and biological warfare.¹² Luckily for the rabbits of Okunoshima, the Japanese government has not yet moved to take similar lethal actions against the rabbits.

This represents another way that the Okunoshima rabbits are liminal. There are at least two distinct and competing views of the rabbits: the government and their agents see them as wildlife, but do not consider them, as they do the other animals on the island, to be a part of “nature.” Instead, these agents see the rabbits as something set apart from nature, and clearly not belonging in nature. They are, in anthropologist Mary Douglas’ term, “matter out of place” (35). Because of this, the official government policy is that feeding the rabbits is discouraged and the hotel can no longer sell rabbit pellets for them.¹³ On the other hand, the tourists see them as *kawaii*.¹⁴ Part of what makes these rabbits *kawaii*, besides their obvious cuteness, is the fact that there are so many rabbits in one place. Unfortunately, while this contributes to their cuteness, the huge numbers are unsustainable on such a tiny island. And finally, the hotel management, tasked by the government with overseeing the island, is dismayed by the damage done to the island, but also understands the economic value of the rabbits, and uses pictures of the rabbits in all of their promotional materials, which draws in yet more tourists, and ultimately, drives up the number of rabbits.

But blaming the rabbits for the damage to the island obscures the human activities that both caused the problem and allow it to continue. It is tourism, after all, that caused the rabbit population to explode to such unsustainable

¹² Cf. Asgari et al. and Thomas et al. for examples of some of the methods used in recent years.

¹³ What this means is that tourists, who often do not know what rabbits should eat, continue to bring unhealthy food for them.

¹⁴ “Cute” in Japanese.

levels. And, ironically, if the rabbits are considered to be an alien species because they did not live on the island until they were first brought to it, and because of the environmental damage they have caused, they do not fulfill the final criteria usually mentioned by those concerned about alien species: economic damage. The work that the hotel staff must do to try to clean up their damage pales in comparison to the money that the tourists now bring in, largely because of the rabbits.

Finally, the rabbits themselves, most likely unaware of the tenuous nature of their existence, continue to do whatever they need to do to survive: build their homes, mate, raise their young, and teach that young how to find food and water in a rabbit-centered, but human-defined, world.

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