



Flourishing with Awkward Creatures: Togetherness, Vulnerability, Killing

Franklin Ginn

Institute of Geography, University of Edinburgh, Scotland

Uli Beisel

Department of Anthropology, Universität Bayreuth, Germany

Maan Barua

School of Geography and the Environment, University of Oxford, UK

Giant isopods are one of the star attractions in the Toba Aquarium, Japan. Under normal circumstances these crustaceans live at depth on the cold, dark ocean floor, scavenging flesh from dead fish and whales. Their alien appearance, as well as the strangeness of their lives, instills a combination of fascination, fear, and disgust in the aquarium visitor. In 2007, one specimen—29 centimetres long and weighing just over a kilogram—was plucked from waters off the Mexican coast and sent to the aquarium. He was named Giant Isopod No.1. No.1 refused to eat for the first year at the aquarium. In 2008 he took two small bites of fish, and again in 2009, but stopped eating completely thereafter.¹ For five years he refused all food, and every attempt to coax the creature into eating failed. Then, one morning his caretaker, Takeya Moritaki, found Giant Isopod No.1 lying listless on the bottom of its tank. By 5pm No. 1 was dead.²

No.1's captivity and death captures the themes addressed by this special section: the awkwardness of being together in multispecies entanglements; the differential vulnerability that both precedes and is reshaped by being drawn together; the way killing and death circulate alongside care and life. This special section aims to enrich our understanding of the ethics of living with nonhuman others. We are interested in creatures that bite, or sting, or—like giant isopods—fascinate but repulse us, and in creatures that must die so that others may live: awkward creatures, in other words, which tend not to fit off-the-shelf ethics.

¹ Toba Aquarium, “ダイオウグソクムシについてのお知らせ” (News about the Giant Isopod). Accessed 29 April 2014, <http://www.aquarium.co.jp/topics/index.php?id=250>.

² Nikkei Inc., “絶食6年目、ダイオウグソクムシ死ぬ 鳥羽水族館” (After Six Years of Fasting, a Giant Isopod Died: Toba Aquarium). Accessed 29 April 2014, http://www.nikkei.com/article/DGXNASFK1404F_U4A210C1000000.

Considerable energy has been devoted by conservationists, activists, and academics in bringing to light nonhuman suffering. We can now turn to abundant evidence that nonhuman creatures matter politically, ethically, and that they pulse with world-making vitality. Yet, if more-than-human and multispecies approaches have tracked the complex inter-weavings of humans and nonhumans, in so doing they have tended to emphasize co-presence, vitality, and affirmative ways of 'being with.' By contrast, and in line with recent work that has stressed the difficulties of caring for "unloved others," for dealing with subversive, "lively commodities," or the monstrous insect, this special section takes up the task of considering how multispecies flourishing works when the creatures are awkward, when togetherness is difficult, when vulnerability is in the making, and death is at hand.³

The three papers in this special section each explore the ambiguities of everyday living with particular awkward creatures. Abrahamsson and Bertoni guide us through the messy world of vermicomposting, a practice they argue is "about doing togetherness in a way that is neither detached nor engaged."⁴ Green and Ginn ponder the gifts of honey and its poisonous counterpoint, the sting, by following a beekeeping community that is influenced by Rudolf Steiner's philosophy and is held together by bee-worship. Brice analyses how pasteurization of wine that aims to eliminate damaging laccase affords us not only insights into the microbial and metabolic (after)lives of wine-making, but troubles familiar notions of what counts as life and death. Each paper opens up different conceptual terrain concerning what it might mean to live with awkward others, and they do so collectively along three axes: togetherness, vulnerability, and killing. Below we briefly recount current thinking on each of these tropes, in order to set the scene for our authors' case studies and conceptual interventions.

Taken together, we propose that the three papers can be read as tales of 'awkward flourishing.' Flourishing can be described as an ethic which enshrines life's emergence and the prospects or conditions for life's emergence as the good to be upheld or nurtured. Environmental and feminist philosopher Chris Cuomo uses flourishing "both to avoid the impression that there is just one possible set of criteria (the good life), and because I believe flourishing more fluently captures the valuable unfolding of nonhuman life."⁵ Haraway, meanwhile, has argued for an ethic of multispecies co-flourishing in which the outcomes are never certain, ethical judgments stick close to the action of worlding rather than abstract principles, and in which emotion and reason both play their parts.⁶ We also know, from the thorough working of biopolitics in recent years, that life and death are not polar opposites, but

³ Deborah Bird Rose and Thom van Dooren, "Unloved Others: Death of the Disregarded in the Time of Extinctions," *Australian Humanities Review* 50 (2011); Rosemary Clare-Collard, and Jessica Dempsey, "Life for Sale? The Politics of Lively Commodities," *Environment and Planning A* 45, no.11 (2013): 2682–2699; Uli Beisel, Ann Kelly, and Noemi Tousignant, "Knowing Insects: Hosts, Vectors and Companions of Science," *Science as Culture* 22, no.1 (2013): 1-15.

⁴ Sebastian Abrahamsson and Filippo Bertoni, "Compost Politics: Experimenting with Togetherness in Vermicomposting," *Environmental Humanities* 4 (2014): 126.

⁵ Chris Cuomo, *Feminism and Ecological Communities: An Ethic of Flourishing* (London: Routledge, 1998), 77.

⁶ Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008).

forces that circulate through the same spaces and bodies.⁷ Flourishing is not some ‘soft’ alternative to biopolitics. Flourishing always involves a constitutive violence; flourishing does not imply an ‘anything goes’ free-for-all, but requires that some collectives prosper at the expense of others. This perspective requires us to see nonhumans not always as victims, nor humans (or more accurately geographically and historically specific groups of humans) as perpetrators. Rather, flourishing involves many species knotted together, often imbricated in human landscapes or economy, working with and against other multispecies assemblies. This makes some assemblies ‘the enemy’ and some not.⁸ Thus flourishing makes no claims to innocence or universality, asking instead who lives well and who dies well under current arrangements, and how they might be better arranged. Vague and unsatisfying ethical precepts, perhaps. But this special issue seeks to test this ethic of flourishing through three grounded studies, seeking to get us a few steps further towards doing life on earth a bit differently. We now turn to the three animating themes of the special section.

Togetherness

Becoming human is a process of becoming with others—indeed, our bodies are to a large extent made up of microorganisms. As Donna Haraway has neatly put it:

I love the fact that human genomes can be found in only about 10 percent of all the cells that occupy the mundane space I call my body; the other 90 percent of the cells are filled with the genomes of bacteria, fungi, protists, ... I love that when “I” die, all these benign and dangerous symbionts will take over and use whatever is left of “my” body, if only for a while, since “we” are necessary to one another in real time.⁹

Building on this posthumanist impulse, studies of microbes have charted the importance of alienness and difference in processes of becoming. Helmreich’s study of microbial oceanography suggests that “the lowly microbe constitutes a force of leviathan significance” for life, but also witnesses the sense of alterity that this vast cosmos of microorganisms in the sea evokes in humans.¹⁰ Similarly, Hird’s examination of bacterial life explores “microontologies”; Hird’s starting point is that humans are not central to the earth, but that rather “bacteria run the show.”¹¹ Taken together, such studies shift agency away from the bounded figure of the human and underline the indifference of the many inhuman forces folded within us.¹²

Attending to microbial life also points us to animal others that disgusts us, animals that we do not (like to) see or touch, and with whom we do not want to be together. Many nonhumans we consider unpleasant or disgusting are our companions—consider for instance

⁷ Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France 1977-78* (London: Palgrave Macmillan, 2007).

⁸ Bruno Latour, “Facing Gaia: A New Enquiry into Natural Religion,” Gifford Lectures, University of Edinburgh, 18-28 February 2013.

⁹ Haraway, *When Species Meet*, 3-4.

¹⁰ Stefan Helmreich, *Alien Ocean: Anthropological Voyages in Microbial Seas* (Berkeley: University of California Press, 2009), 5.

¹¹ Myra Hird, *The Origins of Sociable Life: Evolution After Science Studies* (Basingstoke: Palgrave Press, 2009). She is referring to the work of biologist Lynn Margulis.

¹² Clark, *Inhuman Nature*.

ant colonies in our kitchen, water bugs in the shower, or slugs in the vegetable patch.¹³ We are more intimately familiar with them than we like, but at the same time they remain alien to us, catching us in what Hugh Raffles describes as “the nightmare of knowing and the nightmare of nonrecognition.”¹⁴ This opens up space for friction, conflict, and misrecognition within togetherness; in other words it moves beyond an understanding of ‘togetherness’ as simply life coming together. For every meeting between creatures involves an irreducible strangeness, and something singular, irreducible and vast behind each relation. To quote Derrida, “once you grant some privilege to gathering and not to dissociating, then you leave no room for the other, for the radical otherness of the other, for the radical singularity of the other.”¹⁵ There is a distance between beings when they meet, a multitude of life beyond sense and matter, and flourishing and togetherness emerge from this “virtual ecology.”¹⁶ When the visitor to the Toba Aquarium gawped at Giant Isopod No.1, and perhaps wondered why he refused to eat, or about the dark world whence he was taken, human and crustacean *did* come together, but by entering a zone of “mutual incomprehension,” remaining alien-in-relation.¹⁷ In other words, even brought close, No.1 remained a “strange stranger,” who in fact became all the more strange the longer he was known: *why* did he not eat?¹⁸ Thus togetherness can also be sometimes a question of alien-ness, disconnection, detachment, or withdrawal. An expanded understanding of togetherness therefore requires a more supple conceptual vocabulary of human-nonhuman relations. As Candea argues, a dualism between togetherness and detachment is not very useful, and instead, “scholars need to make some space within the concept of ‘relationship,’ to acknowledge the broad spectrum that lies between complete lack of connection, on the one hand, and actual ‘intersubjectivity’ on the other.”¹⁹

It is exactly this space between togetherness and distance, and between engagement and indifference, that interests Abrahamsson and Bertoni. They suggest that vermicomposting involves a togetherness that goes beyond a binary of being either detached or engaged. They suggest that the complex work of togetherness in the compost bin cannot rely on an additive logic, but works through de-composition, a continual separating out and diffusion of what is brought together. As they put it, as “the togetherness of eating and feeding brings differences together it does so not in making them similar again, or in resolving them in a common world, but in the transformation and destruction that digestion and decomposition involve.”²⁰ Disagreement and heterogeneity come together in compost politics. Similarly, Green and Ginn examine the way bees and beekeepers are drawn into relationship by the gift of honey, but at

¹³ Hugh Raffles, *Insectopedia* (New York: Pantheon, 2010).

¹⁴ *Ibid.*; Franklin Ginn, “Sticky Lives: Slugs, Detachment and More-than-human Ethics in the Garden,” *Transactions of the Institute of British Geographers* (2013): doi. 10.1111/tran.12043.

¹⁵ Jacques Derrida, *Deconstruction in a Nutshell* (New York: Fordham University Press, 1997), 14.

¹⁶ Kathryn Yusoff, “Insensible Worlds: Postrelational Ethics, Indeterminacy and the (K)nots of Relating,” *Environment and Planning D: Society and Space* 31, no. 2 (2013): 208-226, 224. This idea of an irreducible withdrawal between ‘things’ is a main tenet of object-oriented ontology.

¹⁷ John Berger, *Why Look at Animals?* (London: Penguin, 1972).

¹⁸ Timothy Morton, *The Ecological Thought* (Cambridge & London: Harvard University Press, 2010).

¹⁹ Matei Candea, “‘I Fell in Love with Carlos the Meerkat’: Engagement and Detachment in Human-Animal Relations,” *American Ethnologist* 37, no. 2 (2010): 241-258, 244.

²⁰ Abrahamsson and Bertoni, “Compost Politics,” 144.

the same time are held at a distance by the threat of poison. Their account of alternative apiculture emphasizes the risks to beekeepers in coming together with bees, risks that are not just about the sting, but more powerfully about being transformed through a relationship that loosens their grip on self-certainty.²¹ In Brice's study, wine-making is seen as a process in which many metabolic processes come together with uncertain outcomes. One outcome he explores is the growth of the fungus *Botrytis cinerea*. While usually removed when grapes are processed, occasionally this fungus leaves an "orphaned" enzyme, laccase, which interferes with the yeast needed to make wine.²² The response in this case, in order to separate 'good' togetherness from bad, is to pasteurize the wine, thus creating a space in which the prospects for life's flourishing are re-shaped, and the laccase is 'killed.'. We begin to see here how managing togetherness requires excluding some organisms and processes, prioritizing one possible assembly, while leaving another behind or exposed. This leads to our second theme.

Vulnerability

When typhoon Haiyan hit Southeast Asia and left over 6,000 people dead in the Philippines in December 2013, it served as yet another devastating reminder that we—humans, animals, and plants alike—are vulnerable bodies living on a volatile planet.²³ As the IPCC puts it, "Impacts from recent climate-related extremes, such as heat waves, droughts, floods, cyclones, and wildfires, reveal significant vulnerability and exposure of some ecosystems and many human systems to current climate variability."²⁴ And now the newly proposed geological era of the Anthropocene bestows humans with the questionable honour of being a geologic force. It has thus become clear that being entangled with 'us' is not always very good for other earthly denizens: Giant Isopod No.1's wild kin, for example, have been found to ingest quantities of plastic and are often decimated by sea-bed trawling. The era of extinction and species loss throws into sharp relief questions of who exactly 'we' are, what 'we' are doing, and how collectives might live better together on an ailing planet.

The environmental humanities have been responding to the anxieties of this age. Tropes, practices, landscapes, and imagined spaces of absence and disappearance, of vulnerability to violence, and death have prompted deep consideration of melancholy, mourning, and "dark ecology."²⁵ A reluctant embrace of such "sad powers" has been a necessary corrective to an environmentalism too often caught between suppressing its apocalyptic despondency on the one hand and embracing a techno-managerialist optimism on the other. For example, many of the contributors to Sodikoff's *Anthropology of Extinction* agree that the era of mass species death is generative of cultural moods and life movements, at the same time as destroying life.²⁶ One important task for environmental humanities, then, is to

²¹ Kelsey Green and Franklin Ginn, "The Smell of Selfless Love: Sharing Vulnerability with Bees in Alternative Apiculture," *Environmental Humanities* 4 (2014).

²² Brice, "Killing."

²³ Clark, *Inhuman Nature*.

²⁴ IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Summary for Policymakers* (Intergovernmental Panel on Climate Change: 2014), 7.

²⁵ Morton, *The Ecological Thought*.

²⁶ Genese Sodikoff, ed. *The Anthropology of Extinction: Essays on Culture and Species Death* (Bloomington: Indiana University Press, 2012). See also Kathryn Yusoff, "Aesthetics of Loss:

build an empirical repertoire and conceptual language that accounts for the vulnerable, absent, the unloved, and the (soon to be) disappeared.

As the articles in this special section show vulnerability is also key to understanding everyday relations with nonhumans. Green and Ginn show how a multispecies community, comprised of beekeepers and concerned humans, emerges out of colony collapse disorder, a crisis of bee vulnerability. Drawing on Butler's notion of vulnerability, Green and Ginn trace the ambiguous processes that alternative beekeepers experience when attempting to make themselves vulnerable to the bees' two-sided gift—honey and the sting. Caring for bees without protective clothing can be a transformative act for committed beekeepers, but also remains to be a poignant reminder of the vulnerability of human bodies. Green and Ginn conclude this can have ethical implications: "becoming less uncomfortable with vulnerability and seeking to put ourselves at risk can be a productive ethical practice. We might learn to accept the risks more, to loosen the hegemonic idea of a self-certain subject to whom an outsider arrives to disrupt."²⁷ In Abrahamsson and Bertoni's piece on vermicomposting, vulnerability also cuts both ways. The worms in the composting bin are sensitive to the actions of their human caretakers: if the bin is filled with the wrong mix of food leftovers and becomes too wet or too acidic the worms may die, or they may choose to leave the bin. But if this happens it also means loss for the humans as the wormery then fails too—discontent worms do not produce compost. In order to have a functioning composting bin, humans have to adjust their eating preferences to the worms, as much as the worms have to adjust to living in the bin. But the emerging relation between worms and humans is not symmetrical, "it takes work, and it can always produce friction, and lead to failure."²⁸ Vermicomposting, Abrahamsson and Bertoni suggest, teaches us about "dirty normativities," relations that go beyond humans who are in control and nonhumans who are being cared for or neglected.²⁹ This also makes the question of who is vulnerable more uncertain and renders it into a process. Vulnerability is then a provisional outcome in the relations of vermicomposting. Uncertain spaces and temporalities of vulnerability are also the subject of Brice's article on the pasteurization of wine. Wine is complex: its qualities—smell, colour and taste—depend on different microbial lives within the liquid composition. But while some microbes are fundamental to enhancing the quality of the wine, others damage it: managing the two in tandem is not an easy process. In Brice's article, the 'culprit'—the enzyme laccase—does not simply damage the wine, but in the earlier stages of wine production facilitates its growth. This destabilises the notion of vulnerability: can we say that wine is vulnerable to being spoiled by an enzyme when the very same enzyme was important to its development earlier? Brice thus alerts us to the fragile temporalities and spatialities of vulnerability in a world without clearly bounded entities; in his words: "This thorough meshing-together effaces any easy separation of human killers from the nonhumans being killed, and the effects of killing rebound upon wine producers in unintended, ambivalent,

Biodiversity, Banal Violence and Biotic Subjects," *Transactions of the Institute of British Geographers* 37, no. 4 (2012): 578-592; Thom van Dooren, *Flight Ways: Life and Loss at the Edge of Extinction* (Columbia University Press, New York: 2014).

²⁷ Green and Ginn, "The Smell of Selfless Love."

²⁸ Abrahamsson and Filippo Bertoni, "Compost Politics," 140.

²⁹ *Ibid.*

and in some respects unwelcome ways.”³⁰ As this special section shows, the inseparability of ‘good’ and ‘bad’ makes acting while being together ambivalent: action leads to flourishing for some, but not for others.

Killing

Why did Giant Isopod No.1 die? His caretaker did not think it was starvation, and an autopsy offered no biological explanation.³¹ The only certain fact is that at the day of his death, No.1 had not eaten for 1,868 consecutive days.³² No.1’s death echoes reports of dolphins that stop eating or breathing in dolphinariums, and reminds us that human-animal relations are profoundly asymmetrical. One estimate, based on analysis of FAO agricultural statistics, puts the number of sentient animals killed by humans for profit, food, sport, or as a by-product of these activities, at 176 billion per year.³³ As the *Animal Studies Group* put it: “The killing of animals is a structural feature of all human-animal relations. It reflects human power over animals at its most extreme and yet also at its most commonplace.”³⁴ The real shock of the figure of 176 billion deaths comes, then, less from its magnitude, and more from its failure to shock more widely—these creatures have been rendered killable, mere life used for human ends.³⁵ With no prospect of an end to industrialized killing, the environmental humanities now grapple with questions of how to “kill well,” amid “mortal companion species entanglements” from which we have no obvious escape route.³⁶

However, animals are not always victims: humans can also be prey. Because they have become so rare, encounters with ravenous beasts can have the power to destabilize concepts of human-animal relations profoundly. Reflecting on surviving a crocodile attack, Val Plumwood argues that a glimpse “from the outside” of the “alien, incomprehensible” world of the crocodile destabilizes human mastery narratives: “the story of the crocodile encounter now has, for me, a significance quite the opposite of that conveyed in the master/monster narrative. It is a humbling and cautionary tale about our relationship with the earth, about the need to acknowledge our own animality and ecological vulnerability.”³⁷ While such dangerous encounters do have transformative potential, they more often prompt revenge and further killing, and a desire to re-assert human exceptionalism and supremacy.³⁸

³⁰ Brice, “Killing,” 191.

³¹ Nikkei Inc., “絶食 6 年目、ダイオウグソクムシ死ぬ 鳥羽水族館” (After Six Years of Fasting, a Giant Isopod Died: Toba Aquarium).

³² Robert Krulwich “I Won't Eat, You Can't Make Me! (And They Couldn't).” Accessed 29 April 2014, <http://www.radiolab.org/story/i-wont-eat-you-cant-make-me/>.

³³ See analysis of FAOSTAT in Wilhelm Klein, “The hourly ‘Action T4’: About the failure to address anthropogenic animal suffering,” (M.Sc. Thesis, University of Edinburgh, 2013).

³⁴ The Animal Studies Group, *Killing Animals* (Illinois, University of Illinois, 2006), 4.

³⁵ Haraway, *When Species Meet*.

³⁶ *Ibid.*, 287; Mara Miele, Jonathan Murdoch and Emma Roe, “Animals and Ambivalence, Governing Farm Animal Welfare in the European Food Sector,” in *Agricultural Governance: Globalization and the New Politics of Regulation*, ed. V. Higgins and G. Lawrence (Oxford, UK, Routledge, 2005), 110-125.

³⁷ Val Plumwood, “Prey to a crocodile,” *Aisling Magazine* 30 (2000), accessed 28 April 2014, <http://www.aislingmagazine.com/aislingmagazine/articles/TAM30/ValPlumwood.html>.

³⁸ Leah Gibbs and Andrew Warren, “Thinking Space - Killing Sharks: Cultures and Politics of Encounter and the Sea,” *Australian Geographer*, in press.

Although a “visceral” sense of security, that of “not being eaten by big and ferocious wild animals,” is powerful, humans are of course killed far more frequently by microbial, parasitic and viral others.³⁹ As “evolutionary success” stories, mosquitoes and parasites have killed more humans than any other animal for millennia.⁴⁰ Tiny viruses and bacteria on the other hand have in recent years brought into sharp relief their ability to trigger “infectious insecurities” on large scale.⁴¹ Despite attempts to render spaces of human-nonhuman interaction ‘biosecure’ nonhuman agency has proven to be tenacious, adaptive, and disruptive, often escaping regulatory practices. “Healthy life and diseased bodies,” cannot be easily separated, but rather co-exist along uncertain webs of human-nonhuman interaction.⁴² Biosecurity is then not the result of rigorously policed boundaries and ruthless culling, but rather loose “spatial configurations of knowledge practices, organisms and materials, [it is] their ongoing differentiation and not their integration, that makes safe life a possibility.”⁴³

Brice’s article confronts questions of killing, space, and biosecurity. He asks what pasteurizing wine reveals about the dominant assumption that killing is the subtraction of life from an organism. Illustrating the openness of life through the metabolic lives of fungus, Brice argues that if life is seen as a force that exceeds the organism, then death must be understood in the same way. By pasteurizing wine, winemakers do not so much kill unwanted organisms, but rather change the conditions for life’s flourishing by “intervening in the flows of energy and materials which transact alimentary relationships between them.”⁴⁴ Green and Ginn explore a community that attempts to make a space safe from the systemic violence of Colony Collapse Disorder (CCD). But reflecting on a bee sting, they write that, “the image of a bee, dying, on the ground and the human, standing, lip throbbing in pain at the sting, reminds us how uneven the stakes are when the bee and the beekeepers’ lifeworlds collide.”⁴⁵ For the alternative apiculturalists they study, the multiple nature of hive life is something profound, with a kind of character and entity emerging from the multiple lives and deaths of individual bees. One of the hallmarks of alternative apiculture is not interfering in the hive’s life and death, refusing to clip wings, kill drones, or replace queens, and letting the hive swarm, or reproduce, when they are ready. In vermicomposting, the possible need to intervene in the name of conditions conducive to worms’ flourishing is always present: a mite infestation, perhaps, or dealing with escaping worms. Amrahamsson and Bertoni also stress that care does not end after death—

³⁹ Henry Buller, “Safe from the Wolf: Biosecurity, Biodiversity and Competing Philosophies of Nature,” *Environment and Planning A* 40, no.7 (2008): 1583-1597.

⁴⁰ Nigel Clark, “Mobile Life: Biosecurity Practices and Insect Globalization,” *Science as Culture* 22, No.1 (2013): 18; Ann H. Kelly and Uli Beisel, “Neglected Malaria: The Frontlines and Back Alleys of Global Health,” *BioSocieties* 6 (2011): 71-87.

⁴¹ Kezia Barker, “Infectious Insecurities: H1N1 and the Politics of Emerging Infectious Disease,” *Health & Place* 18, no.4 (2012): 695-700.

⁴² Steven Hinchliffe, John Allen, Stephanie Lavau, Nick Bingham, and Simon Carter, “Biosecurity and the Topologies of Infected Life: From Borderlines to Borderlands,” *Transactions of the Institute for British Geographers* 38, no.4 (2013): 531-543.

⁴³ Steven Hinchliffe and Stephanie Lavau, “Differentiated Circuits: The Ecologies of Knowing and Securing Life,” *Environment and Planning D: Society and Space* 31, no.2 (2013): 259-274.

⁴⁴ Brice, “Killing,” 186.

⁴⁵ Green and Ginn, “The Smell of Selfless Love,” 162.

compost politics requires great attention to the rotting afterlives of cucumbers and egg shells, as the death of some organisms enables life for others. Compost politics, then, is a complex dance balancing the forces of life, growth, and care on the one hand, and death, decay, and dissolution on the other hand—at the same time and in the same space.

We hope that the three empirical cases explored in this special section show the different ways through which alterity-in-relation comprises togetherness. We also hope that the articles demonstrate the ways in which vulnerability, violence, and death are part of on-going, generative engagements with nonhuman others, rather than simply being negative elements that can be repressed, ignored, or solved. We suggest that the environmental humanities are ideally equipped to show the poignant complexities of multispecies flourishing, a flourishing that is never innocent, nor good for all involved, but rather an awkward, fumbling process. For the forces of care and suffering, love and death, flow through the same circuits: this can be seen in the death of Giant Isopod No.1, since as much as the public and his caretakers wanted him to flourish in his tank, something about his enclosure affected him and, ultimately, killed him.

Franklin Ginn is a Lecturer in Human Geography at the University of Edinburgh, where his research and writing focuses on more-than-human geographies. He is currently completing a monograph, *Domestic Wild: Landscape, Memory and Gardening After Nature*. His current research includes urban gardening, biophilosophy, and, as part of a multidisciplinary project *Ancestral Time*, imagined geographies of post-apocalyptic life and geoengineering. Email: franklin.ginn@ed.ac.uk

Uli Beisel is a Junior Professor in 'Culture and Technology in Africa' at Bayreuth University, Germany. Uli's work draws together insights from Human Geography, Science and Technology Studies and Social Anthropology, and has to date mainly focused on more-than-human geographies of malaria. She has recently co-edited a special issue of *Science as Culture* on *Knowing Insects*, and continues to be fascinated by the question of how we may better live together with organisms that are harmful to humans. Email: uli.beisel@uni-bayreuth.de

Maan Barua is a Research & Teaching Fellow at the School of Geography and the Environment, University of Oxford. Maan's work focuses on the governance of life in the Anthropocene, drawing upon scholarship in more-than-human geography and political economy. Maan's past research involved understanding human-animal relations in India and the UK. At present he is working on the cultural geographies of species extinction and how they comprise a form of catastrophist biopolitics in the 21st century. Email: maan.barua@ouce.ox.ac.uk

ACKNOWLEDGEMENTS The idea for this special section emerged out of a session on more-than-human geography at the 2012 Institute of British Geographers / Royal Geographical Society annual conference in Edinburgh. Our thanks to Gail Davies and Steve Pile for their contribution as discussants at that session, as well as to the presenters and audience. We are also grateful to the Editorial Board of Environmental Humanities for their support and to the reviewers who gave their time to improve each of the papers. Thanks also to Mitsuru Shikanai for translating news of No.1's life and demise.

Bibliography

- Abrahamsson, Sebastian, and Filippo Bertoni. "Compost Politics: Experimenting with Togetherness in Vermicomposting." *Environmental Humanities* 4 (2014).
- Animal Studies Group. *Killing Animals*. Illinois: University of Illinois, 2006.
- Barker, Kezia. "Infectious Insecurities: H1N1 and the Politics of Emerging Infectious Disease." *Health & Place* 18, no.4 (2012): 695-700.
- Beisel, Uli, Ann Kelly, and Noemi Tousignant. "Knowing Insects: Hosts, Vectors and Companions of Science." *Science as Culture* 22, no.1 (2013): 1-15.
- Berger, John. *Why Look at Animals?* London: Penguin, 1972.
- Brice, Jeremy. "Killing in More-than-human Spaces: Pasteurisation, Fungi, and the Metabolic Lives of Wine." *Environmental Humanities* 4 (2014).
- Buller, Henry J. "Safe From the Wolf: Biosecurity, Biodiversity and Competing Philosophies of Nature." *Environment and Planning A* 40, no.7 (2008): 1583-1597.
- Candea, Matei. "'I Fell in Love with Carlos the Meerkat': Engagement and Detachment in Human-Animal Relations." *American Ethnologist* 37, no. 2 (2010): 241-258.
- Clark, Nigel. "Mobile Life: Biosecurity Practices and Insect Globalization." *Science as Culture* 22, no.1 (2013): 18.
- _____. *Inhuman Nature: Sociable Life on a Dynamic Planet*. London: Sage, 2011.
- Collard, Rosemary-Clare, and Jessica Dempsey. "Life for Sale? The Politics of Lively Commodities." *Environment and Planning A* 45, no.11 (2013): 2682-2699.
- Cuomo, Chris. *Feminism and Ecological Communities: An Ethic of Flourishing*. London: Routledge, 1998.
- Derrida, Jacques. *Deconstruction in a Nutshell*. New York: Fordham University Press, 1997.
- Foucault, Michel. *Security, Territory, Population: Lectures at the College de France*. Basingstoke and New York: Palgrave Macmillan, 2007/1978.
- Fuentes, Augustin. "Naturalcultural Encounters in Bali: Monkeys, Temples, Tourists, and Ethnoprimateology." *Cultural Anthropology* 25 (2010): 600-624.
- Ginn, Franklin. "Sticky Lives: Slugs, Detachment and More-than-human Ethics in the Garden." *Transactions of the Institute of British Geographers* (2013): doi. 10.1111/tran.12043.
- Green, Kelsey, and Franklin Ginn. "The Smell of Selfless Love: Sharing Vulnerability with Bees in Alternative Apiculture." *Environmental Humanities*. 4 (2014).
- Haraway, Donna. *When Species Meet*. Minneapolis: University of Minnesota Press, 2008.
- Helmreich, Stefan. *Alien Ocean: Anthropological Voyages in Microbial Seas*. Berkeley: University of California Press, 2009.
- Hinchliffe, Steven, John Allen, Stephanie Lavau, Nick Bingham, and Simon Carter. "Biosecurity and the Topologies of Infected Life: From Borderlines to Borderlands." *Transactions of the Institute for British Geographers* 38, no.4 (2013): 531-543.

- Hinchliffe, Steven and Stephanie Lavau. "Differentiated Circuits: The Ecologies of Knowing and Securing Life." *Environment and Planning D: Society and Space* 31, no.2 (2013): 259-274.
- Hird, Myra. *The Origins of Sociable Life: Evolution After Science Studies*. Basingstoke: Palgrave Press, 2009.
- IPCC. *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Summary for Policymakers*. Intergovernmental Panel on Climate Change, 2014.
- Klein, Wilhelm. "The hourly 'Action T4': About the failure to address anthropogenic animal suffering." M.Sc. Thesis, University of Edinburgh, 2013.
- Latour, Bruno. "Facing Gaia: A New Enquiry into Natural Religion." Gifford Lectures, University of Edinburgh, 18-28 February 2013.
- Morton, Timothy. *The Ecological Thought*. Cambridge and London: Harvard University Press, 2010.
- Raffles, Hugh. *Insectopedia*. New York: Pantheon, 2011.
- Rose, Deborah Bird, and Thom van Dooren. "Unloved Others: Death of the Disregarded in the Time of Extinctions." *Australian Humanities Review* 50 (2011).
- Smith, Joe, Nigel Clark, and Kathryn Yusoff. "Interdependence." *Geography Compass* 1, no. 3, (2007): 340–359.
- Sodikoff, Genese, ed. *The Anthropology of Extinction: Essays on Culture and Species Death*. Bloomington: Indiana University Press, 2012.
- van Dooren, Thom. *Flight Ways: Life and Loss at the Edge of Extinction*. New York: Columbia University Press, 2014.
- Yusoff, Kathryn. "Aesthetics of Loss: Biodiversity, Banal Violence and Biotic Subjects." *Transactions of the Institute of British Geographers* 37, no. 4 (2012): 578-592.
- _____. "Insensible Worlds: Postrelational Ethics, Indeterminacy and the (K)notes of Relating." *Environment and Planning D: Society and Space* 31, no. 2 (2013): 208-226.