INTRODUCTION

Elusive Matsutake

Lieba Faier for the Matsutake Worlds Research Group

Abstract: In this special issue, we draw on our collaborative research as the Matsutake Worlds Research Group to explore the world-making dynamics of multispecies encounters. We center our exploration on matsutake, a gourmet mushroom eaten primarily in Japan. Drawing on cases from around the world, we suggest that the cosmopolitan worlds of matsutake cannot be accounted for by any single agent or individual set of cultural or political economic processes. Rather, we propose that contingent multispecies attunements and coordinations knit together the various world-making processes that allow matsutake to flourish. We use the notion of ‘elusiveness’ to capture these shifting dynamics of attraction, coordination, and elusion.

Keywords: collaboration, cosmopolitan ontologies, elusiveness, encounters, global processes, matsutake, multispecies relationships

This special issue explores the multispecies relationships of transnational matsutake worlds. It does so in two ways. First, it focuses on multispecies engagements to cast new light on transnational connections. At the same time, it asks what a mushroom’s cosmopolitan itineraries can teach us about the dynamics of multispecies worlds.¹ Thus far, studies of transnational processes have tended to center on human activities (Appadurai 1996; Clarke 2004; Inda and Rosaldo 2008; Kearney 1995; Massey 1994; Ong 1999, 2003, 2006; Trouillot 2003). Even when these studies reference more-than-human beings, they often center their analyses on movements of people, capital, information, or technology (Lowe 2010; Mitchell 2002; Nading 2017).

In contrast, we draw attention to multispecies encounters as constitutive of transnational processes. We explore the interconnected, cosmopolitan lives of humans, mushrooms, trees, insects, and other creatures. We argue that to

understand these multispecies relationships we need to pay attention to their various dynamics of ‘elusiveness’. As explained below, we use this term to mark the productive coordinations that develop in encounters among diverse ways of being, despite the impossibilities of direct translation between them. To track these dynamics across geographical and species lines, we turn to collaboration. Matsutake are our guides.

Matsutake are the fruiting bodies of ectomycorrhizal fungi, fungi that live mutualistically with the roots of certain species of trees. They are eaten as a gourmet delicacy, primarily in Japan. Humans find the mushrooms elusive for a variety of reasons. The matsutake fungus is difficult to pin down geographically, having been discovered with a range of different hosts in sites as far-flung as Turkey, Korea, Canada, Japan, China, Norway, and Mexico (Wang et al. 1997). The main host of matsutake fungi in Japan is the red pine (*Pinus densiflora*). However, they have also been found in relationships with other kinds of pines as well as with some oaks, firs, spruce, cedar, chinkapin, and other trees. Despite considerable efforts by scientists, matsutake have thus far eluded humans’ attempts at their cultivation. They fruit fleetingly and unpredictably, evading human plans for control and instead popping up in relation to their own life-world agendas. They are also difficult to find. Hidden in the forest duff, they are often invisible to the untrained eye. The challenges of procuring the mushrooms have made them prohibitively expensive for most consumers. Moreover, because matsutake growth depends on fungal relationships with trees and other forest dwellers, scientists and would-be cultivators have difficulty conceptually isolating the mushrooms from the web of natural-social relationships through which they grow. Some Japanese scientists even suggest, as Satsuka (this issue) discusses in her article, that the mushrooms are best understood as ‘happenings’ rather than ‘things’. Indeed, the Japanese word ‘matsutake’ is composed of two *kanji* (Chinese characters): 松 (*matsu*, pine) and 茸 (*take*, mushroom). The word not only nominates its object; it also signals the multispecies dynamics central to matsutake growth.

Our research with this fungus has taught us that attention to matsutake elusiveness can help us understand how multispecies engagements contribute to transnational worlds. In our understanding, elusiveness is not an inherent property of certain, mysterious beings. Rather, as Hathaway (this issue) explains, matsutake become ‘elusive’ only when someone or something wants to capture them but cannot, even while someone or something else can. In other words, elusiveness depends on forms of attraction as much as on processes of evasion or escape. A dynamic of interactions across diverse life forms, it is an effect of shifting attunements among different modes of perception and being. Notice how in the paragraph above every example of matsutake’s elusiveness to humans involves other parties that desire to understand, locate, produce, consume, or otherwise engage with the mushroom. To be elusive is to be party to attraction with multiple beings across diverse sites.

Our focus on matsutake elusiveness draws attention to the complex multi-party relationships through which all beings travel, live, and grow. We ask how and why other beings become attuned to matsutake, and we examine the kinds of coordinations that emerge through these processes. We follow the charismatic pull of matsutake as they entice nematodes, insects, deer, dogs, pickers, traders, consumers, scientists, artists, and others. We consider how attraction becomes a means through which the fungus moves in and out of the rhythms of different life-ways, both human and otherwise.

Our aim is to bring questions of multispecies ontologies into dialogue with recent literature on 'global processes'. Our attention to matsutake's multispecies encounters builds on what we think of as our 'encounters' approach to globalization (Faier and Rofel 2014). We see ourselves as part of an intellectual movement exploring how cosmopolitan worlds emerge through encounters across difference (Choy 2011; Faier 2009; Faier and Rofel 2014; Hathaway 2013; Massey 1994; Rofel and Yanagisako 2019; Satsuka 2015; Tsing 2005; Zhan 2009). This approach refuses to see 'globalization' as producing either a growing global homogeneity or a set of partitioned cultural enclaves. Instead, we focus on how global processes emerge through the coming together of different ways of being and forms of attraction and desire. We have elsewhere discussed these dynamics as processes of 'world-making' (Hathaway 2013), 'friction' (Tsing 2005), 'translation' (Satsuka 2015), 'emergence' (Choy 2011), and 'cultural encounter' (Faier 2009).

In this special issue, we ask how we can account for the roles that more-than-human beings figure in these processes. Drawing together cases from across the planet, we illustrate that the cosmopolitan worlds of matsutake cannot be explained by the plans of any single agent or set of practices, political economic or otherwise. Instead, we explore how varied and situated multispecies coordinations knit together the diverse world-making processes through which matsutake flourish, attract, and elude. We focus on the ways that cosmopolitan matsutake ontologies emerge through the friction of everyday practical encounters, and we explore the new constellations of people, insects, trees, and other beings to which they give rise.

In the remainder of this introduction, we first introduce the research collaboration that led us to focus on matsutake elusiveness. We consider how our efforts to extend our collaboration to mushrooms and other forest beings inspired us to turn to science as a means for translating across species-being. As Kohn notes in his afterword, our collaborative research practice directly shaped our theoretical findings; the latter cannot be understood apart from the former. We then explore how our approach to global processes can offer a new perspective on multispecies ontologies by bringing matsutake into relief as a cosmopolitan mushroom multiple. We conclude by considering the research paths opened up by our wild mushroom chase.

Collaboration as a Method for Translating Across Multispecies Worlds

Matsutake came to our attention as charismatic commodities. As Faier (this issue) details, a globalized matsutake commodity chain developed to accommodate rising consumer demand during Japan's frothy economy of the 1980s. Our collaboration enabled us to track this chain across markets and forests by bringing together a wide range of area studies and scientific expertise. In 2005, we created the Matsutake Worlds Research Group (MWRG)—a team of six researchers (Timothy Choy, Lieba Faier, Michael Hathaway, Miyako Inoue, Shiho Satsuka, and Anna Tsing) with different regional foci and methodological commitments—to follow matsutake across the globe. Three of us (Faier, Inoue, and Satsuka) had encountered the mushroom during research in Japan; two in our group (Hathaway and Choy) worked in China, where the mushroom is gathered and sold for Japanese markets; one member (Tsing) had found herself at the center of a matsutake export trade in forests of the Pacific Northwest; Tsing also later went on to gather matsutake in Northern Europe; and another member (Satsuka) met local matsutake pickers in her fieldwork in the Canadian Rockies. Collectively, we had mapped a constellation of matsutake life-worlds that spanned villages in rural Japan, forests in the Pacific Northwest, science labs in Finland, trading ports in China, and high-end urban Japanese restaurants and supermarkets. We wondered what made this cosmopolitan human-fungal-arboreal landscape possible and what roles a mushroom played in linking far-flung sites.

To answer these questions, we undertook fieldwork in rural and urban settings in China, Japan, Finland, Canada, and the United States. We conducted years of participant observation and hundreds of interviews with pickers, traders, importers, scientists, government representatives, and consumers. We formed a shared archive of multi-sited research materials, some of which were gathered independently and significant segments of which were gained in joint fieldwork. We met regularly, not only to share results, but also to take pleasure in discussing new ideas as we developed and reformulated our research questions. Elaine Gan later joined the collaboration as well.

Because we depended on each other's research to make sense of our ethnographic questions, we developed ways of working together across distance and difference. We engaged in 'ethnographic echolocation' (MWRG 2009b), bouncing our observations off each other to develop multi-dimensional perspectives on shared informants, data, and research objects. We practiced textual 'poaching', what we call the process of working with and through conversations and texts produced by each other as we wrote (Choy and Zee 2015; Faier 2010; MWRG 2009a). We experimented with 'slow thinking' (Kahneman 2011) and writing 'mycorrhizally' (MWRG 2009a), dipping in and out of each other's ethnographic findings even as we developed our own perspectives. We

developed new collaborative research techniques to cross geographical and disciplinary boundaries.

Our group meetings led us along different, but connected, ethnographic paths. From the outset, we decided that our collaboration would differ from the types undertaken by natural scientists, who often see themselves as working on subcomponents of a single comprehensive research plan. We did not aim to more efficiently capture component truths to place within a singular narrative about matsutake. Rather, building from our encounters methodology, we aimed to contribute a model of shared research that offered not only ‘thick descriptions’ (Geertz [1973] 2000) but also a collection of variegated narratives that could draw attention to similarities, differences, and uneven connections among concepts and sites.

As we explored the mushroom’s multifaceted engagements, we were inspired to collaborate not only with each other but also with mushrooms and other forest dwellers. Anthropologists have long endeavored to understand life-worlds dramatically different from their own. Fungi, forests, weather, and bugs are central participants in the processes we aimed to study. We were dedicated to learning about their worlds, not just to understanding the perspectives of one human informant or another on multispecies encounters. Yet when we began our collaboration in 2005, few, if any, anthropologists had considered what such an ethnographic project might involve.² Anthropology (by definition, ‘the study of humankind’) lacked tools for accessing the dynamics of more-than-human worlds. Classical fieldwork methods were developed to collect ‘facts’ and ‘data’ from single human cultural groups. Ethnographers often saw themselves as pioneers, ‘lone ethnographers’ (Rosaldo 1989) working independently in their field sites. They conducted participant observation to identify objects, social structures, and cultural phenomena believed to have discernable ontologies (see Bubandt 2014 for a similar observation). If we were to learn from the mushroom to think “Other-wise” (Bhabha 1994: 91), we would need to develop a more capacious ethnographic approach. Even if mushrooms (and the other forest beings with which they grow) are important parts of human worlds, they cannot be interviewed or observed using traditional anthropocentric ethnographic techniques. We needed to be able to translate across multiple forms of being and means of expression—across modes not only of verbal or symbolic communication but also of chemical processing and attraction.

We soon realized that to gain insight into the life-worlds of non-human beings, we had to learn to think alongside scientists, who have their own strategies and technologies for accessing matsutake’s sensory dexterities and communication forms. We could no longer simply treat the work of mycologists and ecologists as modernist narratives or objects of textual analysis. We needed to engage with their work in new, experimental ways. Although our collaboration used conventional interviews and fieldwork methods, we did not

always restrict ourselves to them. We also spent considerable time reading scientific studies about forests and fungi, meeting with scientists, and engaging with forest beings. We learned new languages of biocommunication so that we could explore the polysemous chemical vocabularies of people, fungi, plants, and atmospheres (see Choy and Hathaway, this issue). As we did so, we learned to acknowledge the materiality of multispecies social relations beyond what our human informants claimed.

We were inspired by the matsutake scientists studied by Satsuka (this issue). These scientists develop their findings by opening themselves up to the fungus, even as they approach it as incomprehensibly different from themselves. The elusive mushroom enchants these matsutake scientists; yet, as Satsuka shows, they are not driven to try to solve its puzzle by conventional methods of objectification. Rather, these scientists cultivate an enriched sensitivity toward the mushroom by, in Choy's words, 'tending' to it. Following these scientists, we came to approach science not as a Western ideology but as a translation across world-making practices. From such a view, matsutake science became a companion account and a 'co-labor-ation', a complementary work that endeavors to translate across shared multispecies worlds.³

This insight also led us to approach science not as a global *lingua franca* but as a situated tool for translating more-than-human *umwelten* into languages of human knowledge and experience. Such an understanding of science enabled us to move beyond a 'two-world model' that isolates and reifies Western science and indigenous knowledge as independent cultural formations. Instead, it offers a view of science as part of geographically specific, but interconnected, zones of multispecies engagements spanning the globe.

Cosmopolitan Ontologies of the Mushroom Multiple

The articles in this special issue bring both our encounters approach to global processes and our translational understanding of science into conversation with recent work on multispecies relationships. Over the past decade, scholars have looked to more-than-human worlds to challenge fixed and bounded ontologies of humanness (Haraway 2003; Hayward 2010; Kirksey and Helmreich 2010; Kohn 2013; Lorimer 2012; Ogden et al. 2013; Parreñas 2012; Tsing 2015). Inspired by post-structural critiques of fixed ontologies (e.g., Derrida 1981; Foucault 1977), these scholars have challenged binaries of 'nature' and 'culture'. They have raised important questions about how we can understand ontology, which from Aristotle through Derrida focused on the distinctive 'being' of humans as opposed to the mere existence of plants and animals.

Some of the most generative insights have come from science studies scholars, such as Donna Haraway, Karen Barad, and Bruno Latour. These academics

have questioned assumptions that human ‘being’ can be understood apart from human relationships with more-than-human beings. Instead, they endeavor to account for the agency of more-than-human beings in shaping human worlds. Their work has pioneered what we think of as ‘onto-relational approaches’. They ask us to consider human being as produced relationally—through ‘relationships’ (Haraway 2003), ‘intra-actions’ (Barad 2007), or ‘networks’ (Latour 1987)—with more-than-human beings. We now recognize that ‘the human is more than human’ (Sagan 2011) and that “human nature is an interspecies relationship” (Tsing 2012: 141). This displacement of humans as the ultimate source of knowledge and control has allowed us to explore the roles that non-humans have played in the making of matsutake worlds. We share with these studies a commitment to treating humans and non-humans as part of joint social processes. Yet they offer little help for understanding the ways that multi-species engagements contribute to cosmopolitan social worlds.

Recently, a second challenge to traditional metaphysical approaches to ontology has emerged within the discipline of anthropology. Some refer to this move as the field’s ‘ontological turn’ (Bessire and Bond 2014; Descola 2013; Holbraad et al. 2014; Kelly 2014; Paleček and Risjord 2013; Viveiros de Castro 1998, 2004, 2012). Pioneered along different lines by Eduardo Viveiros de Castro and Annemarie Mol, these approaches introduce questions of what we call ‘ontological polymorphism’ to invite a rethinking of humanness.

First, drawing on Amerindian mythology, Viveiros de Castro (1998) has developed a theory of perspectivism in which ‘natural’ ontologies are relational perspectives shaped by physical form. The worlds he describes are not ‘multicultural’, worlds in which all beings share a common nature that is regarded through different cultural points of view; rather, they are ‘multinatural’. In these worlds, all beings share a common human, cultural condition that assumes different natural, corporeal states. For Viveiros de Castro, metaphysical understandings of human being that separate it from nature are limited by their ethnocentrism. He suggests that by adopting Amazonian perspectivism, we can understand being as differently grounded and thus open ourselves up to alternative ontologies.

In contrast, Mol’s (2002: 32–33) approach is ‘praxiographic’. She offers an understanding of being centered on everyday practice, and specifically on the practical enactments through which an object is realized. In such a view, being is a contingent and precarious accomplishment. An object does not exist in and of itself; instead, its ontology is multiple—decentered in a multitude of situated practices. Mol is interested in connections among different enactments of an object. She demonstrates that objects matter in the world precisely because of their partial connections and multiplicity. Her existential polymorphism derives from distinctive forms of social practices; for instance, different medical worlds produce different ‘bodies’.

Our questions of matsutake elusiveness bring these literatures into dialogue with our work on global processes by exploring the ontologically productive engagements of multispecies worlds across transnational sites. The practices that we trace are part of worlds that center on a mushroom; these are worlds in which humans are one actor among many multispecies agents. At the same time, we focus on matsutake's elusive forms of being as geographically and historically specific. One might say that we are tracking a 'mushroom multiple', the enactments of which involve more-than-human beings. However, our approach also differs from previous studies of polymorphic ontologies. The matsutake enactments that we explore do not occur within a single bounded hospital, laboratory, network, or set of cultural practices. Rather, we track matsutake's cosmopolitan ontologies as they emerge in the overlaps and gaps of the mushroom's worldly encounters.

Our point of departure is a transnational political economic landscape linking people, places, and more-than-human beings across the globe. Our collaboration offers a multi-sited research strategy for understanding how worlds that are simultaneously local and global emerge through the multispecies engagements inspired by matsutake's chemical and sensory enticements. For example, Hathaway (this issue) builds on Jakob von Uexküll's ([1909] 2010) notion of *umwelten*, the particular sensorial capacities through which an organism experiences and engages its knowable world, by asking how different organisms' *umwelten* lead them to engage with matsutake—for instance, by attracting or repelling other beings. In contrast to Uexküll, who assumed that organisms' *umwelten* are like discrete experiential bubbles, Hathaway considers how they develop through translocal multispecies encounters.⁴ Choy (this issue) offers the notion of 'attunement' to help us understand the ways in which different beings open themselves to the attractions of others. Building on what Jamie Lorimer (2007) has called 'non-human charisma' (the ways that humans become attracted to more-than-human beings), Choy argues that attunements develop within ecologies of attraction: they are arrangements of competencies that cultivate sensing bodies, enabling things and distinctions to become sensible to them. Gan and Tsing track the temporal coordinations through which matsutake forests grow, teasing out how translocal histories are part of the contingencies of their emergence.

Collectively, our interest lies in "interspecies intimacies" (Hustak and Myers 2012: 106) as they take shape through transcontinental links. We draw attention to the contingent worlds that emerge as different 'species' attune to, and coordinate with, each other and, thereby, enable matsutake growth. The case studies presented here—crafted in dialogue and drawing on each other's insights and research—show how matsutake worlds develop through shifting coordinations, including forms of serendipity and accident, that do not form predictable structures. We demonstrate that multispecies encounters are not defining moments

of difference but provocations toward relational self-transformation as organisms respond to one another.

Chasing Wild Mushrooms: The Possibilities and Surprises of Elusiveness

Our argument builds on earlier work on matsutake worlds that our group members have published and that are now in progress. This collection is a companion piece to a larger body of work (Faier 2011; Hathaway 2014, 2015, 2016; MWRG 2009a, 2009b; Satsuka 2011; Tsing 2009, 2011, 2012, 2015; Tsing and Satsuka 2008). Our first publications considered the possibilities that collaborative research offers for multi-sited ethnographic projects. We took inspiration from matsutake to consider what it would mean to think ‘mycorrhizally’ (MWRG 2009a) and to explore what we could learn from a mushroom. More recently, Tsing (2015) published *The Mushroom at the End of the World*, the first of a planned three-volume set of ethnographic monographs on matsutake by members of our group.⁵ Tsing’s book illustrates how matsutake grows through the ‘unintentional design’ of forest life. Because matsutake refuses the industrial scalability central to capitalist control, capitalist modernities must work through ‘salvage accumulation’ to appropriate its value. Tsing shows how this mode of accumulation, a key dynamic of capitalist processes, leaves patches of ruin in its wake. But matsutake nonetheless survives—and even thrives—in such landscapes. Eluding principles of progress, civilization, and development, it offers new possibilities for life amid capitalist destruction.

This special issue continues these discussions by exploring emergent sites of possibility and hope introduced by matsutake elusiveness. Turning to the excitement and unpredictability of lives and worlds that escape modernist plans, we offer a collection of ethnographic strategies for chasing matsutake elusiveness and the hopeful, awkward, and mysterious worlds to which it gives rise. To chase is to take the lead from another. Chasing leads to new relationships and unforeseen paths. In these articles, we explore how matsutake chasers—ourselves included—become subject to the objects of their pursuits. As we follow both the mushroom and its chasers, we highlight forms of attraction—commercial, aesthetic, chemical, conceptual, scientific, atmospheric, activist—that link multispecies being across the globe. Through them, matsutake come to matter to different beings in different ways.

Our matsutake chase led us beyond anthropocentric conceptions of communication and desire to account for more-than-human-centered processes of attunement and coordination that swirl around the mushroom. These processes include forms of chemical signaling among insects and plants (Hathaway, this issue), as well as atmospherics of chemical sensitivity (Choy, this issue). They

include the multispecies temporal coordinations that enable matsutake growth (Gan and Tsing, this issue) and involve the ways that such coordinations inspire the reworking of transnational political economic relations, cultural commitments (Faier, this issue), and scientific endeavors (Satsuka, this issue) in human-centered worlds. By bringing these scenes together, we offer a variegated picture of matsutake and the diverse-yet-connected worlds in which it grows. Methods of chasing are world-making projects. Chasers must learn to traverse, translate, juggle, and toggle different ontologies and modes of discernment as they follow their desired objects across worlds of practice and modes of being. In turn, chasers contribute to the emergence of new worlds through this process.

Our focus on ‘the chase’ (Choy, this issue) enables us to examine how an elusive being directs others’ paths, even while it resists capture. It provides ethnographic traction for conceptualizing how affective, sensory, chemical, ecological, economic, biological, atmospheric, and activist relations and forms of attraction and elusiveness come to matter, intermingle, and take hold on a global scale. It is through the bundlings and bumpings of such modes of being that a planetary patchwork of multispecies engagements comes to be.

In the articles that follow, Faier begins by introducing the thrills and anxieties of matsutake consumption on the Japanese archipelago. The multispecies relationships that enable matsutake growth create unpredictable harvests. Under such conditions, matsutake elusiveness—and thus its value as an elite commodity—can itself be elusive. Faier explores some of the unresolvable contradictions that inform human commitments to matsutake commodity elusiveness. She shows that in years of bountiful supply, Japanese consumers maintain their commitment to matsutake elusiveness by framing the mushroom’s abundance as a ‘euphoric anomaly’. Hathaway then zooms in on the role that attractions between matsutake and insects play in contributing to the mushroom’s elusiveness to humans. He focuses on the mushroom’s sensory engagements, such as the perception and release of chemicals, to consider how the matsutake becomes an object of attraction among multiple organisms, including insects, deer, and humans. Hathaway demonstrates how these dynamics continue to shape international matsutake commodity chains, even after matsutake are picked from the ground. At no point do the mushrooms become a commodity independent of other species and completely under human control. Hathaway shows that our grasp of them remains tied to elusive multispecies worlds, even as we consume them. Choy then draws our attention to the ways matsutake’s elusive chemistry attunes scientists and others to its life-world. Focusing on matsutake’s fragrance, he argues for the ‘atmospheric’ as a mode of appreciation. He shows that the atmospherics of the mushroom draw scientists and others to ‘tend to’ its ‘suspensions’, its elusive states of dispersal that exist in between time and space. As we are drawn to these suspensions, the mushroom redirects our paths.

Next, Satsuka explores how the mysteries of matsutake inspire Japanese mycologists to approach the mushrooms as *koto* (events) rather than *mono* (things). These scientists show us that matsutake can be captured only as contingent moments in which sets of multispecies relations coincide, and that they cannot be separated out as discrete objects from these relations. Finally, Gan and Tsing's piece takes our argument deep into the forest. They explore how coordinations among multiple forms of temporality enable matsutake assemblages to hold together. They focus on more-than-human scenes of entanglement in matsutake landscapes. These landscapes—sedimentations of encounters among humans and other forces and beings—are produced through forms of interspecies rhythm. Gan and Tsing present their narratives via a combination of text and diagrams that are integral to their article. The images visually portray processes that are generated through moments of encounter in which “rhythms of life resonate and harness each other.”

Together, these articles present a cosmopolitan ‘matsutake-scape’, a forum of wild creativity. In it, both human and more-than-human beings engage in diverse forms of mushroom pursuit. As they do so, their life-worlds intertwine, at once enabled and transformed by the chase. Please join us as we as pursue elusive matsutake across this patchy landscape of fragrant forests, rustic Japanese inns, bustling produce markets, swanky urban department stores, modernist government offices, ad hoc roadside stands, state-of-the-art (and not so state-of-the-art) scientific laboratories, quaint neighborhood groceries, and cozy living rooms—all of which are part of matsutake worlds.

Acknowledgments

This introduction is based on the collective work of the Matsutake Worlds Research Group. I am grateful to my collaborators—Timothy Choy, Michael Hathaway, Elaine Gan, Miyako Inoue, Shiho Satsuka, and Anna Tsing—for trusting me to serve here as a conduit for their research and ideas. My collaborators also offered extensive input and feedback on earlier drafts, as did Kathryn Chetkovich, Martin Holbraad, and Eduardo Kohn. I am deeply grateful to all for this help. I alone take responsibility for any errors and omissions.

Lieba Faier is an Associate Professor of Geography at the University of California, Los Angeles. Her first book, *Intimate Encounters: Filipina Women and the Remaking of Rural Japan* (2009), is an ethnography of cultural encounters among Filipina migrants and their Japanese families and communities in rural Nagano. She is currently writing a second book, which examines ongoing efforts to fight human trafficking in Japan. She has published in *American Ethnologist*, *Cultural Anthropology*, *Annual Review of Anthropology*, *Transactions of the Institute of British Geographers*, and *Environment and Planning A*. E-mail: lfaier@geog.ucla.edu

Notes

1. A large body of literature dating back to Immanuel Kant has explored the politics and possibilities of cosmopolitanism, yet all from the perspective of human sociability (Kleingeld 2011). Such theories do not easily apply to the worlds of more-than-human beings. Instead, we use the word ‘cosmopolitan’ in the vernacular sense in which it refers to plants and animals that are found across the globe.
2. Our *American Ethnologist* piece (MWRG 2009a) was one of the first publications to use the term ‘multispecies’, which we adopted from the “Multispecies Salon” held at University of California, Santa Cruz, in conjunction with the American Anthropological Association’s annual meeting in November 2006. A 2010 special issue of *Cultural Anthropology* on multispecies ethnography, edited by Eben Kirksey and Stephan Helmreich, soon followed. Over the past decade, a number of anthropologists have offered other wonderful and innovative possibilities for such an endeavor (see, e.g., Kirksey 2014).
3. For a different, but compatible, take on research as a work of co-labor, see Taguchi (2017).
4. Our interest in Uexküll joins that of several other anthropologists who have engaged with his work (Helmreich 2009; Ingold 2000; Jensen 2017; Kohn 2013).
5. Volume 2 is currently being written by Hathaway, and volume 3 by Satsuka.

References

- Appadurai, Arjun. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press.
- Barad, Karen. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.
- Bessire, Lucas, and David Bond. 2014. “Ontological Anthropology and the Deferral of Critique.” *American Ethnologist* 41 (3): 440–456.
- Bhabha, Homi K. 1994. *The Location of Culture*. New York: Routledge.

- Bubandt, Nils. 2014. *The Empty Seashell: Witchcraft and Doubt on an Indonesian Island*. Ithaca, NY: Cornell University Press.
- Choy, Timothy. 2011. *Ecologies of Comparison: An Ethnography of Endangerment in Hong Kong*. Durham, NC: Duke University Press.
- Choy, Timothy, and Jerry Zee. 2015. "Condition—Suspension." *Cultural Anthropology* 30 (2): 210–223.
- Clarke, Kamari Maxine. 2004. *Mapping Yorùbá Networks: Power and Agency in the Making of Transnational Communities*. Durham, NC: Duke University Press.
- Derrida, Jacques. 1981. *Dissemination*. Trans. Barbara Johnson. Chicago: University of Chicago Press.
- Descola, Philippe. 2013. *Beyond Nature and Culture*. Trans. Janet Lloyd. Chicago: University of Chicago Press.
- Faier, Lieba. 2009. *Intimate Encounters: Filipina Women and the Remaking of Rural Japan*. Berkeley: University of California Press.
- Faier, Lieba. 2010. "Thoughts for a World of Poaching." *Cultural Anthropology*. 10 October. <http://www.culanth.org/fieldsights/276-thoughts-for-a-world-of-poaching>.
- Faier, Lieba. 2011. "Fungi, Trees, People, Nematodes, Beetles, and Weather: Ecologies of Vulnerability and Ecologies of Negotiation in Matsutake Commodity Exchange." *Environment and Planning A: Economy and Space* 43 (5): 1079–1097.
- Faier, Lieba, and Lisa Rofel. 2014. "Ethnographies of Encounter." *Annual Review of Anthropology* 43: 363–377.
- Foucault, Michel. 1977. "Truth and Power." In *Power/Knowledge: Selected Interviews and Other Writings, 1972–1977*, ed. Colin Gordon; trans. Colin Gordon, Leo Marshall, John Mepham, and Kate Soper, 109–133. New York: Pantheon Books.
- Geertz, Clifford. (1973) 2000. *The Interpretation of Cultures*. New York: Basic Books.
- Haraway, Donna. 2003. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm Press.
- Hathaway, Michael J. 2013. *Environmental Winds: Making the Global in Southwest China*. Berkeley: University of California Press.
- Hathaway, Michael J. 2015. "Wild Commodities and Environmental Governance: Transforming Lives and Markets in China and Japan." *Conservation and Society* 12 (4): 398–407.
- Hathaway, Michael J. 2016. "Rethinking the Legacies of 'Subsistence Thinking.'" In *Subsistence under Capitalism: Historical and Contemporary Perspectives*, ed. James Murton, Dean Bavington, and Carly Dokis, 234–253. Montreal and Kingston: McGill and Queens University Press.
- Hayward, Eva. 2010. "Fingeryeyes: Impressions of Cup Corals." *Cultural Anthropology* 25 (4): 577–599.
- Helmreich, Stefan. 2009. *Alien Ocean: Anthropological Voyages in Microbial Seas*. Berkeley: University of California Press.
- Holbraad, Martin, Morten Axel Pedersen, and Eduardo Viveiros de Castro. 2014. "The Politics of Ontology: Anthropological Positions." *Cultural Anthropology*.

- 13 January. <https://culanth.org/fieldsights/462-the-politics-of-ontology-anthropological-positions>.
- Hustak, Carla, and Natasha Myers. 2012. "Involutionary Momentum: Affective Ecologies and the Sciences of Plant/Insect Encounters." *differences* 23 (3): 74–118.
- Inda, Jonathan Xavier, and Renato Rosaldo, eds. 2008. *The Anthropology of Globalization: A Reader*. 2nd ed. Malden, MA: Blackwell.
- Ingold, Tim. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.
- Jensen, Casper. 2017. "The Umwelten of Infrastructure: A Stroll Along (and Inside) Phnom Penh's Sewage Pipes." *Zinbun* 47: 147–159.
- Kearney, Michael. 1995. "The Local and the Global: The Anthropology of Globalization and Transnationalism." *Annual Review of Anthropology* 24: 547–565.
- Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.
- Kelly, John D. 2014. "The Ontological Turn: Where Are We?" *HAU: Journal of Ethnographic Theory* 4 (1): 357–360.
- Kleingeld, Pauline. 2011. *Kant and Cosmopolitanism: The Philosophical Ideal of World Citizenship*. Cambridge: Cambridge University Press.
- Kirksey, Eben, ed. 2014. *The Multispecies Salon*. Durham, NC: Duke University.
- Kirksey, S. Eben, and Stefan Helmreich. 2010. "The Emergence of Multispecies Ethnography." *Cultural Anthropology* 25 (4): 545–576.
- Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology beyond the Human*. Berkeley: University of California Press.
- Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard University Press.
- Lorimer, Jamie. 2007. "Nonhuman Charisma." *Environment and Planning D: Society and Space* 25 (5): 911–932.
- Lorimer, Jamie. 2012. "Aesthetics for Post-human Worlds: Difference, Expertise and Ethics." *Dialogues in Human Geography* 2 (3): 284–287.
- Lowe, Celia. 2010. "Viral Clouds: Becoming H5N1 in Indonesia." *Cultural Anthropology* 25 (4): 625–649.
- Massey, Doreen. 1994. *Space, Place, and Gender*. Minneapolis: University of Minnesota Press.
- Mitchell, Timothy. 2002. *Rule of Experts: Egypt, Techno-politics, Modernity*. Berkeley: University of California Press, 19–53.
- Mol, Annemarie. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- MWRG (Matsutake Worlds Research Group). 2009a. "A New Form of Collaboration in Cultural Anthropology: Matsutake Worlds." *American Ethnologist* 36 (2): 380–403.
- MWRG (Matsutake Worlds Research Group). 2009b. "Strong Collaboration as a Method for Multi-sited Ethnography: On Mycorrhizal Relations." In *Multi-sited Ethnography: Theory, Praxis and Locality in Contemporary Research*, ed. Mark-Anthony Falzon, 197–214. London: Ashgate.

- Nading, Alex M. 2017. "Local Biologies, Leaky Things, and the Chemical Infrastructure of Global Health." *Medical Anthropology* 36 (2): 141–156.
- Ogden, Laura A., Billy Hall, and Kimiko Tanita. 2013. "Animals, Plants, People, and Things: A Review of Multispecies Ethnography." *Environment and Society: Advances in Research* 4: 5–24.
- Ong, Aihwa. 1999. *Flexible Citizenship: The Cultural Logics of Transnationality*. Durham, NC: Duke University Press.
- Ong, Aihwa. 2003. *Buddha Is Hiding: Refugees, Citizenship, the New America*. Berkeley: University of California Press.
- Ong, Aihwa. 2006. *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty*. Durham, NC: Duke University Press.
- Paleček, Martin, and Mark Risjord. 2013. "Relativism and the Ontological Turn within Anthropology." *Philosophy of the Social Sciences* 43 (1): 3–23.
- Parreñas, Rheana "Juno" Salazar. 2012. "Producing Affect: Transnational Volunteerism in a Malaysian Orangutan Rehabilitation Center." *American Ethnologist* 39 (4): 673–687.
- Rofel, Lisa, and Sylvia J. Yanagisako. 2019. *Fabricating Transnational Capitalism: A Collaborative Ethnography of Italian-Chinese Global Fashion*. Durham, NC: Duke University Press.
- Rosaldo, Renato. 1989. *Culture and Truth: The Remaking of Social Analysis*. Boston, MA: Beacon Press.
- Sagan, Dorion. 2011. "The Human is More than Human: Interspecies Communities and the New "Facts of Life." *Cultural Anthropology*. 24 April. <https://culanth.org/fieldsights/228-the-human-is-more-than-human-interspecies-communities-and-the-new-facts-of-life>.
- Satsuka, Shiho. 2011. "Eating Well with Others/Eating Others Well." *Kroeber Anthropological Society Papers* 99/100: 134–138. Special 100th anniversary issue.
- Satsuka, Shiho. 2015. *Nature in Translation: Japanese Tourism Encounters the Canadian Rockies*. Durham, NC: Duke University Press.
- Taguchi, Yoko. 2017. "An Interview with Marisol de la Cadena." *NatureCulture*. <http://natureculture.sakura.ne.jp/an-interview-with-marisol-de-la-cadena/>.
- Trouillot, Michel-Ralph. 2003. *Global Transformations: Anthropology and the Modern World*. New York: Palgrave Macmillan.
- Tsing, Anna L. 2005. *Friction: An Ethnography of Global Connection*. Princeton, NJ: Princeton University Press.
- Tsing, Anna L. 2009. "Beyond Economic and Ecological Standardisation." *Australian Journal of Anthropology* 20 (3): 347–368.
- Tsing, Anna L. 2011. "Arts of Inclusion, or, How to Love a Mushroom." *Australian Humanities Review* 50: 5–21.
- Tsing, Anna L. 2012. "Unruly Edges: Mushrooms as Companion Species." *Environmental Humanities* 1: 141–154.
- Tsing, Anna L. 2015. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton, NJ: Princeton University Press.
- Tsing, Anna, and Shiho Satsuka. 2008. "Diverging Understandings of Forest Management in Matsutake Science." *Economic Botany* 62 (3): 244–253.

- Uexküll, Jakob von. (1909) 2010. *A Foray into the Worlds of Animals and Humans with a Theory of Meaning*. Trans. Joseph D. O'Neil. Minneapolis: University of Minnesota Press.
- Viveiros de Castro, Eduardo. 1998. "Cosmological Diesis and Amerindian Perspectivism." *Journal of the Royal Anthropological Institute* 4 (3): 469–488.
- Viveiros de Castro, Eduardo. 2004. "Exchanging Perspectives: The Transformation of Objects into Subjects in Amerindian Cosmologies." *Common Knowledge* 10 (3): 463–484.
- Viveiros de Castro, Eduardo. 2012. "Cosmological Perspectivism in Amazonia and Elsewhere." *Masterclass Series 1*. Manchester: HAU Network of Ethnographic Theory.
- Wang, Yun, Ian R. Hall, and Lynley A. Evans. 1997. "Ectomycorrhizal Fungi with Edible Fruiting Bodies: *Tricholoma matsutake* and Related Fungi." *Economic Botany* 51 (3): 311–327.
- Zhan, Mei. 2009. *Other-Worldly: Making Chinese Medicine through Transnational Frames*. Durham, NC: Duke University Press.