

"[...] In times of crisis we constantly tell ourselves we must think again—one of the most powerful messages of these ethnographic illuminations is that this applies as much to familiar terrain for the anthropologist as to the unfamiliar. They invite us to think again about where and when and who we think we are."

—**Marilyn Strathern**, Professor Emeritus, Social Anthropology, University of Cambridge, UK

"If the world is more than one, the question rises how it hangs together. The contributions to this book [...] present astutely analyzed cases of encountering, juxtaposing, intertwining, coordinating, interfering, co-existing, translating, and further kinds of going-on between different (but what is different?) versions of a wondrous world—that is less than many."

—**Annemarie Mol**, Professor of Anthropology of the Body, University of Amsterdam, the Netherlands

"[...] One of the disquieting answers to be found in *The World Multiple* is that the dominant modern way of doing the real is making less and less world worth living. And yet, we cannot but remain attentive to the flourishing 'arts of living' on this damaged planet; nay, get ready to practice them ourselves."

—**Eduardo Batalha Viveiros de Castro**, National Museum of the Federal University of Rio de Janeiro, Brazil

"Ontological multiplicity encounters postcoloniality: this book is essential reading for all scholars interested in struggles over nature, culture, and knowledge in the asymmetrical worlds in which the profoundly different realities of modernity and indigeneity are entangled together."

—**John Law**, Co-Director of ESRC Centre for Research on Socio-Cultural Change (CRESC), UK

The World Multiple, as a collection, is an ambitious ethnographic experiment in understanding how the world is experienced and generated in multiple ways through people's everyday practices. Against the dominant assumption that the world is a single universal reality that can only be known by modern expert science, this book argues that worlds are worlded—they are socially and materially crafted in multiple forms in everyday practices involving humans, landscapes, animals, plants, fungi, rocks, and other beings. These practices do not converge to a singular knowledge of the world, but generate a world multiple—a world that is more than one integrated whole, yet less than many fragmented parts.

The book brings together authors from Europe, Japan, and North America, in conversation with ethnographic material from Africa, the Americas, and Asia, in order to explore the possibilities of the world multiple to reveal new ways to intervene in the legacies of colonialism, imperialism, and capitalism that inflict damage on humans and nonhumans. The contributors show how the world is formed through interactions among techno-scientific, vernacular, local, and indigenous practices, and examine the new forms of politics that emerge out of them.

Engaged with recent anthropological discussions of ontologies, the Anthropocene, and multi-species ethnography, the book addresses the multidimensional realities of people's lives and the quotidian politics they entail.

Keiichi Omura is Professor in Anthropology at the Open University of Japan.

Grant Jun Otsuki is Lecturer in Cultural Anthropology at Victoria University of Wellington, New Zealand.

Shiho Satsuka is Associate Professor of Anthropology at the University of Toronto, Canada.

Atsuro Morita is Associate Professor of Anthropology and Science, Technology and Culture at Osaka University, Japan.

SOCIOLOGY / ANTHROPOLOGY

 **Routledge**
Taylor & Francis Group
www.routledge.com

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ISBN 978-1-138-31482-5



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THE WORLD MULTIPLE

KEIICHI OMURA, GRANT JUN OTSUKI,
SHIHO SATSUKA, AND ATSURO MORITA
Editors

Routledge

THE WORLD MULTIPLE

*The Quotidian Politics of
Knowing and Generating
Entangled Worlds*

**KEIICHI OMURA
GRANT JUN OTSUKI
SHIHO SATSUKA
ATSURO MORITA**
Editors

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The World Multiple

**The Quotidian Politics of Knowing
and Generating Entangled Worlds**

**Edited by Keiichi Omura, Grant Jun
Otsuki, Shiho Satsuka, and
Atsuro Morita**

 **Routledge**
Taylor & Francis Group
LONDON AND NEW YORK

First published 2019
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

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British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Names: Omura, Keiichi, 1966- editor.

Title: The world multiple : the quotidian politics of knowing and generating entangled worlds / edited by Keiichi Omura [and three others].

Description: Abingdon, Oxon ; New York, NY : Routledge, 2019.
Identifiers: LCCN 2018035728 | ISBN 9781138314825 (hardback) | ISBN 9780429456725 (ebook)

Subjects: LCSH: Ethnology. | Ethnoscience. | Anthropology.

Classification: LCC GN320 .W746 2019 | DDC 305.8--dc23

LC record available at <https://lccn.loc.gov/2018035728>

ISBN: 978-1-138-31482-5 (hbk)

ISBN: 978-0-429-45672-5 (ebk)

Typeset in Goudy
by Integra Software Services Pvt. Ltd.

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Contributors

Mario Blaser is the Canada Research Chair in Aboriginal Studies at Memorial University and Associate Professor in the Departments of Geography and Archaeology at Memorial University of Newfoundland, Canada. He is the author of *Storytelling Globalization from the Paraguayan Chaco and Beyond* (Duke University Press, 2010).

Cristóbal Bonelli is currently a Marie Curie Senior Researcher in Anthropology at the Institute for Water Education, IHE, Delft, the Netherlands in collaboration with the Institute of Archaeology and Anthropology, Universidad Católica del Norte, Antofagasta, Chile. He is also a researcher at the Center of Intercultural and Indigenous Research and at the Center for Integrated Disaster Risk Management. His work explores socio-natural entanglements and clashes between scientific and indigenous worlds and practices. His current research traces emerging entanglements between people and groundwater in the Atacama Desert of Northern Chile.

Marisol de la Cadena is a Peruvian anthropologist teaching at the University of California at Davis, USA. Her most recent book is *Earth Beings. Ecologies of Practice Across Andean Worlds* (Duke University Press, 2015).

Shunwa Honda (Henry Stewart) is retired Professor of Anthropology, The Open University of Japan, and author and co-editor of *Indigenous Peoples around the Globe: The Tundra World* (in Japanese; Akashi-shoten, 2005).

Taku Iida is Professor at the National Museum of Ethnology, Osaka, Japan. His most recent book is *Mi wo motte Shiru Giho: Madagasukaru no Ryoshi ni Manabu* (*Arts of Knowing through the Body: Learning among Fishers in Madagascar*, Rinsen Book Co., 2014). He is currently interested in the process of how “knowledge” and “culture” are shared in societies.

Casper Bruun Jensen is a Specially Appointed Associate Professor at Osaka University and Honorary Lecturer at Leicester University, UK. He is the author of *Ontologies for Developing Things* (Sense, 2010) and *Monitoring Movements in Development Aid* (with Brit Ross Winthereik, MIT Press, 2013) and the editor of *Deleuzian Intersections: Science, Technology, Anthropology* with Kjetil Rødje

(Berghahn, 2009) and *Infrastructures and Social Complexity* with Penny Harvey and Atsuro Morita (Routledge, 2016). His present work focuses on knowledge, infrastructure, and practical ontologies in the Mekong river basin.

Stacey Langwick, MPH, PhD, is an Associate Professor in the Department of Anthropology at Cornell University, USA. She is author of *Bodies, Politics and African Healing: The Matter of Maladies in Tanzania* (Indiana University Press, 2011) and co-editor of *Medicine, Mobility and Power in Global Africa* (with Hansjoerg Dilger and Abdoulaye Kane, Indiana University Press, 2012). Currently, she is finishing a book entitled *The Politics of Habitability: Plants, Sovereignty and Healing in a Toxic World*, which examines the emerging herbals industry in Tanzania. She is particularly interested in how herbals are (re)configuring the notions of medicine, property, chronicity, and crisis that are fundamental to global health.

Moe Nakazora is Lecturer at the Graduate School of International Cooperation and Development, Hiroshima University, Japan. She is currently finishing a book manuscript entitled *Chitekishoyu-ken no jinruigaku: Indo no seibutsusigen o meguru kagaku to zairaiichi* (*Anthropology of Intellectual Property Right: Biodiversity-related Science and Indigenous Knowledge in Contemporary India*, Sekaishisoshia, 2019).

Heather Anne Swanson is Associate Professor of Anthropology and Deputy Director of the Centre for Environmental Humanities at Aarhus University in Denmark. She is also a member of the Aarhus University Research on the Anthropocene (AURA) project, co-editor of *Arts of Living on a Damaged Planet* (University of Minnesota Press, 2017), and co-editor of *Domestication Gone Wild* (with Marianne Elisabeth Lien and Gro B. Ween, Duke University Press, 2018).

Anna Tsing is Professor of Anthropology at the University of California, Santa Cruz, USA and a Niels Bohr Professor at Aarhus University, Denmark, where she co-directs Aarhus University Research on the Anthropocene (AURA). Her most recent books are *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton University Press, 2015) and *Arts of Living on a Damaged Planet* (co-edited with Heather Swanson, Elaine Gan, and Nils Bubandt, University of Minnesota Press, 2017).

Antonia Walford is currently a Teaching Fellow in Digital Anthropology at University College London, a Post-Doctoral Research Associate at the Centre for Social Data Science (SODAS), University of Copenhagen, and a Research Fellow at the Centre for Interdisciplinary Methodologies, University of Warwick, UK. Her research explores the effects of the exponential growth of digital data on social and cultural imaginaries and practices, focusing particularly on large-scale digitization in the environmental sciences. She has published in several major journals and is preparing a book manuscript.

Mei Zhan is Associate Professor of Anthropology at the University of California, Irvine, USA. She is the author of *Other-Worldly: Making Chinese Medicine Through Transnational Frames* (Duke University Press, 2009).

immense support. Moe Nakazora made special contributions as the chief editorial assistant. I also owe thanks to Asli Kemiksiz and Liv Nyland Krause for their editorial assistance; to Molly Mullin, Caroline Jennings, and Jessica Ruthven, who conceptually edited the chapters; and to Elaine Gan, who designed this book's beautiful cover.

I acknowledge the assistance of Osaka University and the National Museum of Ethnology, especially the staff of the accounting office and the Nakanoshima Center of Osaka University. I thank especially Aki Hyoudou, Keiko Akamatsu, Yuka Ikuo, and Emiko Nio for assistance with the 2016 symposium, this book, and the other associated workshops and symposia I have organized. I gratefully acknowledge the logistical assistance of Akina Tagawa, Wakana Suzuki, and Marina Samukawa at those other events. In Canada, I am grateful to Joshua Barker, Bonnie McElhinny, Andrea Muehlebach, and Michelle Murphy for sharing ideas at the sister workshop in Toronto in May 2017, as well as Sabrien Amrov, Jessica Caporusso, Columba Gonzalez, Veronica Grigio, Jacob Nerenberg, Emily Simmonds, and Lindsay Small for their stimulating comments. I thank Brenton Buchannan, Bronwyn Frey, and Johanna Pokorny for organizing the workshop at the University of Toronto, and I thank the staff of the Anthropology Department there for their assistance.

I give special thanks to Milton M. R. Freeman, who suggested the framework of the research project, "A Comparative Study of Indigenous Knowledge and Modern Science." Conversations with Paul Nadasdy also provided inspiration. Thanks to participants in various other meetings related to this project, who contributed to the explorations of this book but were unable for various reasons to contribute to it: Anders Blok, Shuhei Kimura, Gergely Mohácsi, and Tak Uesugi. I thank the guest speakers and commentators for the workshops of the research project, who provided much inspiration—Hiroyuki Aoki, Yukio Gunji, Yuka Mizutani, Sho Morishita, Osamu Nakagawa, Kazuto Nakatani, Motomitsu Uchibori, and Tadashi Yanai—and to the anonymous referee who made many useful suggestions for improving the book's frameworks.

I gratefully acknowledge the financial support we have received from the Japan Society for Promotion of Science and Osaka University. Their support made the workshops and symposia possible.

Finally, this book owes much to the indigenous peoples and other interlocutors that I and the contributors have encountered all over the world. I especially thank my teachers and friends: Martha Tunnuq, Simon Inuksak, Jose Angutingnungniq, Levi Illuittuq, Emily Illuittuq, Christian Nalungiaq, Guy Kakkiamniun, Attima Hadlari, Shuvinai Mike, Peter Itinnuaq, and Peter Irniq. They are central to our explorations of the world multiple.

Chapter I

Introduction

Grant Jun Otsuki, Shiho Satsuka, Keiichi Omura, and Atsuro Morita

At 5:00 a.m. in Nunavut, in the Canadian North, an Inuit elder leaves his comfortably heated home to look out at the sea and check on weather and ice conditions. His extended family lies fast asleep. Satisfied with his grasp of the morning, he goes back inside and switches on his living-room radio. As the aroma of his morning tea fills the room, he plays a hand of solitaire while listening to a weather report in the Inuktitut language and waits for his family to wake. Around 7:00 a.m., one of his sons enters the living room and asks the elder whether today will be for hunting. The elder gestures for his son to check the forecast on the computer. They then sit to discuss the weather on the basis of information from the radio and the internet, the elder's own early morning observations, and his *Inuit Qaujimagatuqangit*—Inuit knowledge, IQ. As the elder's other sons join them from their own homes, the day's plan is fixed. Some prepare to hunt, donning thermal clothing, fueling snowmobiles or outboard motors, and bringing out rifles, harpoons, and nets. Just before 8:00 a.m., a group leaves to hunt for *niqinmarik*—the *real* food of fish and meat. The *niqinmarik* will be shared among the hunters' families. This fulfills a moral responsibility: the animals will offer their bodies to the hunters only if, in return, the hunters share the food with kin. Sharing the meat in this way makes it possible for the animals' spirits to be reincarnated. While some members of a family are hunting or fishing, others will go to work at the co-op or the hamlet office to earn the money needed for equipment and fuel. All of this needs to be done to generate their world, *nuna*.

Inuit hunters live complex realities where the world of technoscience and that of their indigenous knowledge, IQ, are entangled. *Nuna* is an intricately connected world of humans and non-humans which the Inuit know, generate, and maintain through a long tradition of hunting activities. At the same time, *nuna* is a world filled with modern technologies, such as the internet and snowmobiles, and market relationships and wage labor as people in the community work as government officials, co-op managers, and artists. When preparing their equipment for an expedition, they link labor at government offices with the moral obligation to participate in the reincarnation of wildlife. On the ice, they use snowmobiles and rifles to fulfill their responsibility to share *niqinmarik* among

kin. Hunting is an important act of negotiating with animal worlds while connecting with spirits, ancestors, and people in the community. Their use of internet weather reports and snowmobiles to hunt seal or polar bear maintains nuna, but also entangles their lives with a national weather-monitoring network, the conservation policies of the Canadian nation-state, and a planetary satellite system. These practices create channels to worlds outside their immediate communities, making everyday Inuit life irreducibly multidimensional (see Omura, Chapter 5 in this volume). These practices sustain nuna, although they are never free from friction, tension, or transformation. Nuna is a world multiple, an assemblage of partially incommensurable knowledges and partially connected practices.

Nuna is not another interpretation of a single material world. Such a conceptualization is a product of what John Law (2015) calls the “one-world world” doctrine. This doctrine assumes the existence of only one natural world, and takes different cultures to be no more than interpretations of that world. This doctrine makes it possible to believe that the truth of these cultures can be measured by the standard of the natural world, privileging modern science as the authoritative means of knowing it.

The world multiple is an inspiration and a guide for thinking beyond the one-world world. The world multiple is both a world and worlds. It is fractal (cf. Law 2015); it may be constituted by more worlds inside, and may be itself part of another world, none necessarily simpler or more complex than others. To paraphrase Donna Haraway, one world is too few, but two are too many (Haraway 1991, 177; cf. Strathern 2005, 36). In our use, the singular form will always imply the plural, and vice versa. But the question of how many worlds there actually are is of little importance. What matters more is to make sense of the complex and multidimensional realities that people like the Inuit hunters are living. To do this, we need to consider the relationships between modern technoscience and other forms of knowledge and practices—often described as indigenous, traditional, folk, or vernacular—in people’s engagements with the world. How should we attend to the simultaneous existence of the different material consequences generated by the entanglement of modern technoscience and other knowledges and practices? This book represents a collective experiment in exploring these questions with the figure of the world multiple.

From body into world

The idea of “the world multiple” emerged in initial conversations between Keiichi Omura and Shiho Satsuka about the key theme for the workshop that led to this book, which was held in Osaka, Japan in 2016. The workshop was a part of Omura’s collaborative research project, funded by the Japan Society for Promotion of Science. While the title of his funded project was “A Comparative Study of ‘Indigenous Knowledge’ and ‘Modern Science,’” Omura had been searching for an analytic framework that would avoid the binary opposition of

“indigenous knowledge” and “modern science.”¹ From the nearly three decades that Omura has been working with the Inuit, he has become deeply committed to their IQ advocacy project. He feels uncomfortable with the framing of the Inuit and other indigenous peoples as passive recipients of global forces such as modern science, which makes the creative and multidimensional reality of their everyday practices invisible.

In Omura’s observations of heterogeneous practices among the Inuit and in his attention to the material aspects of reality and ontological multiplicity, Satsuka detected resonances with Annemarie Mol’s *The Body Multiple* (2002). In her ethnographic analysis of atherosclerosis treatments in a Dutch hospital, Mol illustrates the ontological multiplicity in a diseased body—a disease is not a single objective reality waiting to be discovered and diagnosed, but a phenomenon made real through the coordination of different medical practices. She demonstrates that these practices do not all fit together easily to generate a single reality; inasmuch as different specialists in various disciplines act on the body using different forms of practice, and as patients experience the disease, the body manifests materially in different ways. Yet these different practices are coordinated to make a diagnosis. The body with atherosclerosis is the ontological achievement of these coordinations. Mol’s analytic approach seemed relevant to Omura’s, but the conjuncture also brought Satsuka new realizations about the contradictory and complementary practices of mushroom scientists and their material effects that she has been observing over the past ten years. She had been wondering how to make sense of the tension in her scientific interlocutors’ project on artificially cultivating matsutake mushrooms, a project that can potentially belong to both the world of capitalist resource extraction and that of interspecies care and affection (see Chapter 14 in this volume). Satsuka thus presented Omura with the challenge to extend Mol’s insights from the body to the world multiple.

During the 2016 symposium that first brought the contributors to this book together in one place, the possibilities of the world multiple came alive as ethnographic insights drawn from around the world crossed with diverse conceptual tools. But moving away from a hospital in the Netherlands to diverse settings in the world required us to deal with a broader array of unanticipated connections, unruly companions, and unfinished historical business. Mol’s work provided us with a powerful provocation, but the “intricately coordinated crowd” (Mol 2002, 9) of the body multiple is a rather cordial one. In Mol’s hospital, different bodies are enacted in the practices of experts in different departments, providing a map with which to trace the multiple embodiments of atherosclerosis. In the world beyond the hospital, crowds are rarely so easily managed. Everyday life is full of people engaging with practices from competing or incommensurable ontological genealogies. Our fields are often messy; practices do not neatly correspond to the social order that defines different communities of experts. Furthermore, in other worlds it is impossible to turn a blind eye to the legacies and ongoing practices of colonialism,

imperialism, militarism, and capitalist exploitation. These require us to consider how we encounter and think about multiplicity in the world, which we may find mangled by politics or disfigured by violence imposed on human and other-than-human beings. Attention to worlds brings into stark relief the political, historical, and social chains that encumber what kinds of worlds are possible.

Entangled realities for livable world

At the symposium, our interest in challenging the one-world world took on a new sense of urgency. We were asking questions about how others strive to make worlds worth living in and for, and how anthropologists might best become part of these worlds. The past few decades have witnessed a heightened concern over environmental issues framed on a planetary scale: climate change, rising sea levels, contamination of the biosphere, and species extinctions. The term “Anthropocene” (Crutzen and Stoermer 2000) was coined to signify the intensity of human impact on the Earth, indicating that human activities have become a major geological force working on a planetary scale. It has caught the popular imagination for how it epitomizes an awareness of the past centuries of industrialization and devastating resource extraction inscribed on the Earth. It also captures anxieties about the livability of our planet in the future. The sciences and technologies of global environmental change—modeling, simulation, and remote sensing—have guided our optics toward a planetary view of the environment. This planetary consciousness has generated momentum among social scientists who have been critically reflecting on the centuries of colonialism, imperialism, and militarism that have caused the violent exploitation of humans, and enabled the destruction of many other-than-human beings on the Earth. This moment requires both contending with the technoscientific consensus that human activity is impacting life at a planetary scale, while maintaining a suspicion of universals and the politics and interests they might obscure (Chakrabarty 2009, 221). How might we join critical reflections on the violence imposed upon humans and non-humans on this planet? How can we do so while remaining critically wary of the holisms conjured forth by this new planetary consciousness?

Parallel with this development, indigenous and traditional environmental knowledge has drawn interest as a way of navigating the twilight of late modernity. Modern science is often critiqued as abstract, mechanistic, and reductionist, perceiving the natural world based on a dualistic ontology that separates nature from human society. In opposition, indigenous knowledges are characterized as embodied, organic, holistic, and composed from entangled relationships between humans and the other-than-human. This binary has long cast IQ explanations of hunting interactions as little more than irrational myths, because they “inappropriately” mix the human and the animal, with neither clearly belonging to the domain of the “natural” or the “social.”² But now, the very entanglement of the natural and the social in indigenous

knowledges such as IQ is being considered the key to overcoming the limitations of the abstract technoscientific approach. Since the 1980s, social scientists have advocated for the effectiveness of indigenous and other traditional knowledges in conserving biodiversity (e.g., Collings 1997; Freeman 1985, 1993). As a result, these knowledges have gradually been incorporated into decision-making processes, and consulting with their practitioners has become a policy requirement in some governments in North and South America (e.g., Blaser 2009; Nadasdy 2003; Omura 2005, 2013; Usher 2000; Wenzel 2004). Yet, as many critics have pointed out, indigenous and traditional knowledges have been assumed to be static cognitive frameworks: the holders of these knowledges are treated as though they are in the grip of epistemological paradigms that have remained unchanged from ancient times (Agrawal 1995; Krupnik and Vakhtin 1997; Omura 2007). While there is an inclusive drive to make up for past epistemic discrimination and violence, the “incorporation” (Nadasdy 1999) of indigenous and traditional knowledges into existing frameworks prolongs the hegemony of modern technoscientific expertise, and its basic assumption of a one-world world. How might we think beyond “incorporation,” and give heed to the interactions between modern, indigenous, and traditional forms of life?

The world multiple also reverberates with the fundamental rethinking of space and time that we have learned about from interlocutors in the sciences. Karen Barad’s writing on quantum physics (2007, 2017) shows how science itself is not all about a one-world world, but can offer up provocative ways to think about how worlds come into material being through entangled relationships. Using quantum physics pioneer Niels Bohr’s writings on the behavior of light, Barad (2007) explains that the way matter exists in the world cannot be determined prior to its “intra-actions” with its surroundings. The quantum puzzle of whether light is *really* a wave or a particle misses the point that light becomes wave or particle depending on the constitution of the socio-material assemblages—that is, the experimental apparatuses—with which it is entangled. Moreover, this does not simply change how we think about “what” light is, but also “when” and “where.” Light is not a thing that flies freely against the background of a flat, Newtonian space-time. It demands different times and spaces depending on whether it becomes a point-like particle or an arrow-like wave. Light exists as a heterotemporal, heterospatial matrix which shifts the nature of its being, time, and space contingent upon the specific relations in which it is placed. Anthropologists may usually have little to do with the ontological multiplicity of photons, but we have yet to fully come to terms with the fact that flat Newtonian space-time is no more than a partial way of imagining the world. As beneficiaries of modernity, we easily fall back into thinking about worlds as flat spaces and times occupied by our human interlocutors. But we can take insights like Barad’s as a warrant to explore the dynamics of multiple, entangled realities that people are already engaging with. How, then, might we learn to sense and speak of these multiplicities?

Quotidian politics of worlding

The chapters assembled here are diverse in their aims, interests, and styles of argumentation. Yet they converge in how they explore the quotidian politics of worlds inspired by postcolonial perspectives. In doing so, these chapters show us that we need to focus on how worlds are socially and materially generated in practice within specific power relations. In other words, they show us that we need to attend to *worldings* and their politics (Tsing 2010, Chapter 15 in this volume; Welland 2018; Zhan 2009, 2012). Worldings are “different stagings of the world” that engender a sense of what is “natural” (Welland 2018, 29). They are situated “figurings of relevant worlds,” articulations of who and what matters in a particular form of life (cf. Tsing 2010, 48). These practices are not acts that can be performed by a lone individual, but material-semiotic “enactments” (Law 2015, Mol 2002) or “intra-actions” (Barad 2007) that always involve associating with human and non-human others (Latour 2005). Worldings may conjure an aura of totality, but they are practices that are always partial and incomplete on their own. Conversely, worldings may be polyvalent, generating the conditions of possibility for more than one world at the same time. They are unstable in their form and effects, and open to critique, resignification, and transformation (Welland 2018, 40).

Worlding has appeared in anthropology with multiple genealogies, primarily in literary studies and postcolonial studies (Spivak 1985; Tsing 2010; Welland 2018), but in the Western canon most trails pass through the work of Martin Heidegger (1993).³ For Heidegger, a world is a space in which humans emerge as human beings through their relations with other things—human, animal, plant, and otherwise. It is the what and the where that make up the conditions of possibility of being human, encompassing both the actual realm of the humanly perceivable and the virtual realm of the humanly possible (Heidegger 1993, 170). Conversely, the human being is a condition of possibility for a particular world. This feedback relation is what it means for a world (n.) to world (v.). For Heidegger, the world emerges out of what he calls “earth,” which is the stable, enduring, and nourishing ground which must constantly recede for worlds to come “into full radiance” (141–142) as figures. Heidegger’s first articulation of worlding appeared in thinking about art as a form of being; it has since been used by postcolonial theorists to think about art and literature as materially generative of worlds, not as mere representations of the world. But where Heidegger takes “world” and “being” (*Dasein*) as singular in relation to each other (see Derrida 1982; Spivak in Derrida 1997, xvii), postcolonial scholars have emphasized the possible and actual other worlds that are generated at the margins of hegemonic ones—hence Gayatri Spivak’s attention to “the Third World” (1985), Sasha Su-Ling Welland’s decolonizing “art worlds” in China (2018), or Mei Zhan’s *re*-worlding of Daoist oneness (2012). It is this postcolonial focus on worlding as a generative and critical practice that inspires this book.

The chapters in this volume take on the analytic challenge of considering the specificities of each ethnographic scene and how a multitude of practices among different actors generate the worlds in which they dwell. The attention to worlding changes where we must look for diversity. Anthropologists have classically used the concept of culture to explain why human ways of life can differ so much across space and time. Though culture has been defined in countless ways, it is usually opposed to the natural world, the material realm that exists independently of what humans might think of it. Anthropologists, like those in many other modern disciplines, have seen cultures as human interpretations of this naturalized “one-world world.” But if our practices *make* reality, then human diversity is not about differing cultures, but about differing worlds.

This also means that we do not take humans to be the only beings that act in the world. As the Inuit example implies, humans can play an important role in generating *nuna*, but their world cannot wholly encompass the worlds of animals. Moreover, the chapters show worlding as a multilayered practice, in which one actor can simultaneously participate in incommensurable worlds (see e.g., Omura, Chapter 5 in this volume; Langwick, Chapter 10; Satsuka, Chapter 14), or one group of people can become a site of contestation among different worlding practices (see Iida, Chapter 12). Multiple worlding practices come into contact and “fold” into tentative and tense stability (see e.g., Swanson, Chapter 7; Bonelli, Chapter 8) or, as de la Cadena discusses in Chapter 2, produce “not only” their intended effects but also significant “excesses.” Worldings are practices that involve heterogeneous actors and heterogeneity within actors. In this way, as Tsing explicates in Chapter 15, many of the chapters in this book are informed by, and build on, recent anthropological discussions of ontologies (e.g., Gad, Jensen and Winthereik 2015; Henare, Holdbraad and Wastell 2007; Holbraad and Pedersen 2017; Viveiros de Castro 2004) and ethnographies that take non-human species seriously (e.g., van Dooren, Kirksey and Münster 2016; Kirksey and Helmreich 2010; Kohn 2013; Ogden, Hall and Tanita, 2013; Schrader 2010).

Our focus on practices of worlding points towards subtle forms of politics embodied by worlds multiple. Worlding always entails building some relationships and ignoring possibilities for others; or being affected by some actors and indifferent to others. In this sense, there is a politics embodied in the socio-material constitution of worlds. This pushes us to rethink what counts as political. The political is often glossed in terms of questions of representation. As Gayatri Spivak points out, in this politics, it is assumed that an oppressed people “can [if given the chance,] speak and know their own conditions” (Spivak 1999, 269). The project of this politics is to create space for the self-representation and self-determination of the oppressed and provide that chance. This book indicates the limitations of this way of thinking. The subtle politics of multiplicity in practice are prior to representational politics in that they are enacted and can make their effects felt whether or not the actors involved are recognized by anyone as political subjects as such.

Representational politics is a product of the Enlightenment and modern liberalism, which assumes humans are rational individuals with universal and intrinsic rights who possess the agency to resist external forces. But our everyday worlds are filled with politics that fit uneasily within this representational regime. They are populated by peoples whose subjectivities can be represented only if they are painfully and violently distorted. Our critique of the “one-world world” questions the subjectivity assumed by this conventional politics, pushing us to focus on the *quotidian*.

The *quotidian* conventionally refers to the ordinary, the everyday, and the mundane.⁴ In this sense, our exploration of *quotidian* politics is influenced by Michel Foucault and his discussions of micropolitics in the basic conduct of life (Foucault 1988). Foucault forcefully illustrates the process in which modern liberal governmentality has been formed through the production of modern subjects who deeply internalize the norms of liberalism through their everyday conduct, disciplining themselves into productive workers and law-abiding and rational citizens (Foucault 1991). His work does not take the modern subject as a given, but as formed through *quotidian* practices. Thus, Foucault took an important step toward examining the foundational processes that made the one-world world. Beyond this, many of the chapters in this book suggest that possibilities for an “otherwise” can be found in *quotidian* practices, if we remain ambivalent about the notion of a single totalizing world that enframes them. The *quotidian* is a notion capacious enough to hold other forms of worlding.

Ethnography provides a way of engaging with the world multiple. Indeed, ethnography may itself be thought of as a worlding practice entangled with concrete moments from the lives of our interlocutors (see Jensen, Chapter 3 in this volume and Walford, Chapter 13). One may thus think of the *quotidian* as the experiential world that the anthropologist might come to share—or perhaps only glimpse—as she or he makes relations with his or her interlocutors using the practices of fieldwork. Accordingly, many of the chapters in this book work with an ethnographic “jeweler’s eye” (Fischer 2007) to bring into relief the concrete and specific character of the relationships that generate specific worlds. As postcolonial scholars have shown (e.g., Asad 1991), the ways that anthropologists represent other worlds can never be free of the modern, colonial world for which our discipline was established. But we hope that insofar as it is a worlding, our writing can be multiple, polyvalent, and gesture to an otherwise.

The diversity of styles of argumentation, representation, and analysis embodied by this book’s chapters show how anthropology itself is more than a singular mode of engagement with the world. Readers of this book will notice stark and even jarring shifts of tone between chapters. These are the traces of the authors’ diverse backgrounds—their languages, the places where they grew up and developed their thoughts, their disciplinary training, and the times and locations they received that training. They also reflect differences in the worlds that each author attempted to approach, which called for their own ways of

being theorized and narrated. Anthropologists enact worlds multiple, entangling them with our various disciplinary and political dispositions to generate different relationships, possibilities, and written representations. With their attention to *quotidian* politics, the chapters push our ability to see, listen to, and touch other worlds in subtle but profound ways, so that we might perhaps recognize new affinities, obligations, and responsibilities. And, like all good experiments, they provoke unexpected questions and reveal new directions to explore, even as they give us empirical confidence in the important lessons we have learned together.

Chapter organization: Entangled worldings, space-time multiplicities, exploring *quotidian* politics

Befitting the theme of this volume, readers will sense multiple ways of connecting its chapters. Some chapters share an emphasis on multiplicity in a particular region of the world: South America (de la Cadena, Bonelli, and Walford: Chapters 2, 8, 13); Asia (Swanson, Nakazora, Zhan, and Satsuka: 7, 9, 11, 14); the Arctic and circumpolar regions of Canada (Blaser, Omura, and Honda: 4–6); and Africa (Langwick, Iida: 10, 12). Lateral linkages also exist in terms of our contributors’ perspectives on plants or fungi (Nakazora, Langwick, Satsuka, and Tsing: 9, 10, 14, 15); science and technology (Swanson, Iida, and Satsuka: 7, 12, 14); freight conceptions of “indigeneity” (de la Cadena, Jensen, Nakazora, and Walford: 2, 3, 9, 13); or anthropological knowledge production (Jensen and Walford: 3, 13). While all of our contributors explore the potential of the world multiple, analytic and empirical trajectories differ. We have grouped them roughly according to how they navigate the contemporary problem space of the world multiple. These groupings are not mutually exclusive, but we offer them as three reference points for reading through this book.

The authors in Part I—*Entangled worldings*—explore how forms of being enacted in worlding practices embody and enable forms of multiplicity both within and beyond the worlds of ongoing colonialist and imperialist projects. Marisol de la Cadena’s chapter (2) is exemplary here for her sensitive account of her own incapacity to fully occupy the worlds which her Andean interlocutors inhabit with ordinary ease. She describes how earth-beings (*tirakuna*) and Andean persons (*runakuna*) exist with and beyond mountains and human beings, exposing in the process the violence in the translation and imposition of the notion of religion. Her refrain of “not only...”—“religious, but not only...” “a mountain, but not only...”—marks the limits of translation and gestures towards the simultaneous existence of other worlds.

Casper Bruun Jensen’s chapter (3) carries de la Cadena’s argument forward to consider both classical debates in anthropology about emic versus etic standpoints, and contemporary debates stemming from the ontological turn. Jensen explores the consequences of de la Cadena’s work in the Andes, as well as ethnographic reflections on infrastructures in the Thai Chao Phraya Delta, to

argue for an emetic approach to anthropology, which faces the nausea induced by ontological instabilities to think about multiplicities of being.

In working through what Jensen calls an emetic approach, de la Cadena invokes Isabelle Stengers' notion of divergence to refer to "an ecology of practices [that are not] contradictory or incommensurable [but] heterogeneous" (2015, 112), producing multiple worlds and beings that "[continue] to be distinct" (de la Cadena, Chapter 2). Mario Blaser's chapter (4) looks at such an ecology in Labrador, Canada, in which the biological species of "caribou" diverges from but also remains tied to the being known by Innu hunters as *atiku*. Blaser's ethnography follows this ontological divergence to highlight the political stakes it has for environmental conservation, resource-hungry states, and the continuation of Innu forms of life.

Keiichi Omura's chapter (5) also focuses on divergence among indigenous hunters in Canada, but his concern is with understanding maps of the land as material-semiotic objects that translate between different worlds. Omura thinks of the topographical map as a "boundary translational matrix," and he explores the "strategic" and "tactical" practices (a distinction made by Michel de Certeau) that Inuit hunters use to mediate between their world and the world of the Canadian Government.

Shunwa Honda's chapter (6) is the third in the trilogy of chapters about the North. Like Omura, Honda is concerned with the lives of the Inuit, but his chapter examines multiplicities within the category "Inuit" itself. Climate change has impacted and is received in radically different ways by Inuit in west Greenland versus north Greenland and Nunavut, Canada, which are structured by differing experiences of colonization, governance, economic development, and physical environment. Honda's chapter provides comprehensive empirical insights into Inuit life, and in this sense it complements Omura's chapter. But his main contribution is to present the diverse perceptions and responses that Inuit communities have had to climate change, demonstrating the multiplicity of ways to be Inuit.

Part II—*Space-time multiplicities*—is a cluster of essays concerned with how worlds multiple imply overlapping and diverging spatialities and temporalities. The relationships among materiality, spatiality, and temporality form the center of Heather Swanson's chapter (7) dealing with the making of salmon bodies and landscapes in the most northern of Japan's main islands, Hokkaido. The worldings wrought in the practice of comparison provide the path Swanson follows for examining how salmon and landscape have been entangled since the onset of Japan's modernization and colonization endeavors in the nineteenth century. Comparisons between Hokkaido's salmon and those of the Columbia River, and between its landscapes and the frontiers of the American West, transformed species and landscape and also spurred the development of technologies, commodities, and a new place for Japan in the modernizing world. This assemblage of humans and non-humans is a materialized multiplicity of comparisons that have coordinated a way to "hang together" in time.

Cristóbal Bonelli's chapter (8) argues that the domination of the "one-world world" is also an imposition of a "one-time-temporality." To draw out the divergent temporalities that dwell in the world, Bonelli offers an ethnographic and philosophical meditation on the "politics of when"—a form of politics in addition to the representational "politics of who" and the ontological "politics of what." He draws together singular inscriptions of names—those of Chilean dictator Augusto Pinochet on a sacred stone and of Miguel Cuevas Pincheira, one of his victims, on the bridge where he disappeared—with the Spinozan notions of *conatus* and "striving" to think about the entangled politics of duration, ontological persistence, and the material act of inscription.

If Swanson and Bonelli look at the multiple pasts that inhere in the present, then Moe Nakazora's contribution examines worldings in which what count as past, present, and future is at stake. An outgrowth of her extensive work on Ayurvedic medicine in India, this chapter (9) examines how Ayurvedic knowledge is translated with modern biomedical knowledge in the construction of biodiversity databases. Against the background of global and national agreements for protecting biodiversity, Nakazora shows how database projects for collecting Ayurvedic knowledge about plants in Uttarakhand become contentious "contact zones" (cf. Pratt 1992), where multiple knowledges and practices encounter each other to generate new temporalities in which plants and various practitioners live.

Part II concludes with Stacey Langwick's ethnographic evocation of the lushness engendered by plants in Tanzania (Chapter 10). "Lushness" is a particularly apt word with which to imagine the verdant and vibrant multi-species relations that *mlonge*—a tree used to produce herbal therapies—calls forth around it. Langwick shows us how Tanzania is a place where the often overbroad notion of the "Anthropocene" (see Morita, Afterword) is manifested in the quotidian as pervasive toxicity. *Mlonge* and the way it strives for life with others then become Langwick's more-than-human guides for thinking about what worlds are possible in toxic times.

Anthropological analysis has always been in some sense about finding ways to talk about worlds: analysis is a worlding practice, albeit one that necessarily leans heavily on translating the quotidian into text, usually in a Western, academic idiom. The chapters in Part III—*Exploring quotidian politics*—acknowledge this ecology of practices. But they refuse to sever abstractions from the quotidian worlds that they make available in text so that they can offer analytics that stay entangled with worlds multiple. Such entanglements lie at the center of Mei Zhan's chapter (11) on entrepreneurial experiments with traditional Chinese medicine. These experiments are both classical and contemporary in orientation, but this is not a contradiction: Zhan argues that Daoism, Max Weber's problematic studies of Chinese religion, and Maoist materialism, among others, are not successive systems of thought, but tangles of worldly relations that Chinese medical entrepreneurs grasp at or sweep aside as they work to re-animate the "primal spirit" of traditional Chinese medicine.

By doing so, her essay challenges our reverence for critical analysis as an epistemological act that is done to the world; instead, Zhan shows how critical analytics are *in* the quotidian doings of worlds.

A similar irreverence is evident among Vezo fishers in Taku Iida's chapter (12), a careful study of the development, sharing, and transformation of various kinds of knowledge in southern Madagascar. Iida shows how relations among villagers and between fishers and foreign NGOs can help reveal how knowledges transform, multiply, and adapt over time. Iida distinguishes between knowledge and "information" in Gregory Bateson's sense, to develop a model that sees knowledge as a practice and information as relations, and uses this to ponder, among other things, what this reveals about commonly held distinctions between "technoscientific" and "local" knowledges.

Antonia Walford's chapter (13) takes us from analyses of knowledge to reflections on self-knowledge. São Gabriel da Cachoeira is a city located at the confluence of the Rio Negro and the Rio Uaupés in Brazil. Walford attends to how the people she encounters there, both "indigenous" and "outsider," speak about the "world of the Indians" and the "world of the whites." Comparison appears here as the practice of interest, but in contrast to Swanson's approach, Walford is interested in how people iterate comparisons between "Indians" and "whites" in ways that provide both unexpected sources of stability for some indigenous interlocutors and anxiety-inducing, perhaps "emetic" experiences for others. Walford uses these to think about the concept of "equivocation" (Viveiros de Castro 2004; see Chapters 2–4 and 15 in this volume by de la Cadena, Jensen, Blaser, and Tsing), and how to more carefully theorize encounters between multiple worlds.

Shiho Satsuka's chapter (14) takes us into a forest of multispecies relations and introduces us to the work of matsutake mycologists and "meisters," scientists and farmers brought together by the charisma of the matsutake mushroom in Japan. Satsuka's questions concern the multiple, overlapping, and divergent worlds that mushrooms, scientists, and masters enact through their relations with each other. Not unlike Langwick's interest in the lushness surrounding the *mlonge* tree, Satsuka attends to the multidimensional engagements that these actors have with each other, which both connect worlds and hold them apart, emphasizing the omnipresent but thoroughly situated potentials for the *otherwise* that inhabit worlds multiple, which epitomizes this volume's focus on subtle politics.

Anna Tsing concludes Part III with a chapter (15) that is wary of holism but hungry for connection. Her essay stages an encounter between two ways of thinking about humans and non-humans in anthropology today—ontological anthropology and multispecies ethnography—to ponder their differences and feel out their resonances. Tsing traces a path from there through Annemarie Mol's work, Satsuka's analytic focus on "translation" (2015), and Morita's intervention in "infrastructure" (2016) to discuss the importance of "encounter" and "coordination" in thinking about worlds multiple. She moves on to her own

recent ethnographic experiments for evoking worlds multiple, such as the Matsutake Worlds Research Group (Matsutake Worlds Research Group 2009a, 2009b), and especially her collaboration with the visual artist/scholar Elaine Gan, and the "Golden Snail Opera" (Tsai et al. 2016), to suggest ways of intervening generatively in contemporary anthropological debates.

Atsuro Morita provides the Afterword. Drawing our attention to the horizons of anthropology, Morita connects the contributors' experiments back to Marilyn Strathern's (1995) reflections on the local and global. The "global" for Strathern was an imagined, encompassing scale or an "ever-expanding horizon" against which the "local" becomes a meaningful relational object, though in shifting ways. Morita argues that, in contrast, the "world" of the world multiple is not a self-evident background for local relations, but is itself a relational object. This is due to, among other things, the realization that human life does not just imagine the globe, but constructs it in the age of the Anthropocene. Morita shows how this leads the contributors in this volume not simply to replace "globe" with "world," but to sound out the elusive depths of the worlds generated in complex, ceaseless, recursive movements between objects and their backgrounds.

The practices found and documented in these chapters point towards ways that the world multiple might help us cultivate "arts of living on a damaged planet" (Tsing et al. 2017). The world multiple is a modest experiment with "speculative fabulation" (Haraway 2015) to explore possibilities of life in a world respectful of multiplicity.

Acknowledgments

Our thanks to the participants in the 2016 "The World Multiple" symposium for inspiring this discussion. We are particularly grateful to Mei Zhan, who offered close readings and helpful feedback that have improved the final text. Otsuki also thanks Jeff Sissons, Eli Elinoff, and Callan Sait for their feedback on earlier versions. Satsuka thanks the participants of her graduate seminars "Postcolonial Science Studies" and "Politics of Cohabitation" at the University of Toronto for discussing the issues addressed in this introduction and helping her develop the ideas.

Notes

- 1 Omura was also not satisfied with the sensationalization of the Inuit "adoption" of modern technologies, such as the internet and snowmobiles. The spirit of this book is also to explore analytic frameworks alternative to the conventional assimilation or acculturation model exemplified by the sensationalization of indigenous creativity, which also reinforces the hegemony of modern "Western" technology.
- 2 As Roy Wagner (1981) argues, in the modern Western ontology, social relations belong to the domain of culture as a product of creative human agency, while things must stay in the domain of nature as inert and given. From this perspective, applying social categories to the domain of nature inevitably looks like subjectivism, an unjustifiable extension of the logic of the cultural to the natural (cf. Ingold 2000).

- Indigenous knowledges, as typified by IQ, are characterized as not being constrained by modernist boundaries between animals and humans; seeing homologies between ecological interspecies relations and social interpersonal relations; and explicitly relating ecology and biology with religion, kinship, political organization, and myth.
- 3 Zhan (2012) argues that Heidegger's "unworlded" Daoism, by failing to acknowledge its influence on his thought, makes Daoist ideas "invisible and unimaginable as analytical frameworks" (113). Heidegger was also influenced by Jakob von Uexküll's notion of "*umwelt*" ("around space") (Mazis 2008, 32–33).
 - 4 In this sense, the quotidian may resemble the traditional "local" field site of anthropology experienced in real-time. Our use of the quotidian is compatible with this meaning, but the contributors to this book show how worldings often do not respect the boundaries of things like the "local." Worlding practices bring into range many things that affect us, or are affected by us. The quotidian is this space-time that both is made in practice, and is where those practices take place.

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