EX AVIBUS: DISTRIBUTED PERFORMANCE BY WAY OF MIGRATORY SHOREBIRDS ON THE EAST ASIAN-AUSTRALASIAN FLYWAY

by

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Ex avibus: Distributed Performance by way of Migratory Shorebirds on the East Asian-Australasian Flyway

Abstract

What I aim to show in this written dissertation and the complementary creative works is a reciprocal movement between practice-led research—in which Performance contributes to knowledge in the transdisciplinary area of animal studies—and research-led practice—where performers in other animal studies disciplines form part of the relational ensembles from which Performances emerge *ex avibus* (Latin: from the birds).

My title comes from ancient Roman times, when one of the means for divining the gods' approval in human affairs was through signs conveyed *ex avibus*. By contrast, my subtitle, *distributed performance by way of migratory shorebirds on the East Asian-Australasian Flyway*, alludes to our contemporary time of the Anthropocene in which environmental scientists, evolutionary biologists, ornithologists, and citizen scientists are invested in the survival of birds that regularly disappear from view to breed in the remote Arctic tundra. What links all these places, epochs, and epistemologies is this question: how do birds lead humans to perform other versions of humanness?

As the chapters unfold sequentially, and then from thesis to gallery space, each place will resemble a stage on which relational ensembles form and express themselves through different modes of performance. It is a conceptual design that I've learned from the migratory shorebirds. These *aves* must migrate strategically, flying for long distances and only occasionally landing at select staging sites. As the birds lead us from site to site, I ask the question: how does what's happening here, on this interspecies and inter-agential stage, challenge or indeed redefine previous assumptions about performance of the social kind and Performance of the more marked cultural kind? In drawing out some propositional responses, chapter by chapter, I seek to explicate in written form what you will also find implicated in the creative work for this doctorate.

Introduction

I suspect the research began before I knew it.

Prefigurement

I was hoping for refuge in another city. A friend had assured me this would be a healing house. I didn't know what that meant but the words were balming enough to help me make the solo drive from Canberra to Melbourne.

The house had all the things a house should have: bedrooms, comfortable chairs, running water. There were lots of unusual things about it though. It was close to 100 years old but it had the flow of a mid-century modern layout. Large woodpanelled screen doors were designed to slide into wall cavities making one continuous space out of lobby, living room, and dining room. The entrance to the house, facing north, the coveted aspect, was inconsequential. The house's true orientation was out the back, to the south, where the land sloped away towards Darebin Creek, its sinuous course both hidden and revealed by eucalypts and acacias. A row of windows, unbroken by either mullions or curtains, spanned the entire south-facing wall; the same in the main bedroom along the western wall. Sugar gums shaded the house on this side. There was wood everywhere: dark timber floors, exposed roof joists with redwood panels as ceiling, more redwood panels on the walls all the way up to the plate rails in the living room, and all the way up to meet the lowered ceilings in the bedroom. Solid wooden furniture was built into every room, some of it fitted with oversized brass hinges. Any sunlight trying to enter was quickly swallowed up by the wood. On a bright day outside it seemed to be even darker inside, like living in a cinema with a movie always running. On those days, moving from room to room, your pupils worked hard, continually contracting and dilating.

The healing I needed was the slow kind. Already it had been months since his death but I knew months and years more of this lay ahead. During the weekdays, I could pretend to be a worker, doing research for my next performance project at

the university, but during the nights and weekends, I was in the house, having my dinners prepared by an unbroken stream of visiting carers.

I suppose it was inevitable that on top of the deeper fragility, an ordinary kind of illness would lay me low. I don't remember if it was the 'flu or just a bad cold. It doesn't matter. It amounted to the same thing: a day alone during the week, lying in bed, looking out the windows and into the branches of the sugar gums.

Doing nothing is what I thought I was doing. Just looking out those windows into brightness. The bedroom was a fair way above the ground on this side so the trees were done with the trunk part by the time they reached window level. What I saw, looking straight out, was that branching section of the trees, with some leafy parts but not the full canopy.

The morning inched along, leaves barely moving as though the film had become stuck in the gate. Then. Flash. Swift and direct from left of frame, colours landing on a branch directly in my sight line. Then. Right away, another one, same streaking in from left, landing on a different branch. A bit of preening. Looking around. Then. Gone. They hadn't seen me, hidden in the dark. Or if they had, I was of no concern to them. But they had made themselves known to me, bursting into my field of view like that. I waited through the afternoon, but alert now in a way I hadn't been before. Twice more it happened. One, then two would appear, stay for a few seconds, move off again. Dusk eventually closed the scene. The rituals of night took over.

I don't remember trying to identify them. Perhaps I'd called them parrots but they may have been lorikeets, anything more precise than that was beyond my competence. I was no birder. I was out of home range. But *they* seemed to be very familiar with everything. They seemed to know more than I did, about themselves and the place that we would be sharing for a while. They pointed out, for instance, that I was not living in a house so much as a bird hide. They had also changed the shape of time; their movements to and from the trees were of their choosing not mine. And yet I'd been more than happy to surrender to their rhythms. Given the state I was in it was hard to resist the idea that they'd been sent, that they were

auspicious somehow, that their performance of being animal was powerfully related to my own. Perhaps even directing me. But how?

Zugunruhe

As I imply in the "Prefigurement," my doctoral research had begun here at the level of what a self-diagnosing patient might call the id. A performance with birds was developing in the subconscious. It would be a few more years before my indwelling birds stirred again and began to occupy the tangible spaces of my consciousness, available for reflection and expansion into writing and art practice. That re-awakening stage is told in Chapter 1, "Surveyor."

Meanwhile, while residing at Macgeorge House and working at the University of Melbourne, my ego had been consciously directed towards an art museum performance. On this occasion, the other animal was leeches and the internal agitations had been triggered by a watercolour captioned "leech aquarium" (a property of Felton, Grimwade & Co. Richmond, Melbourne; Fig. 1), showing a humble weatherboard shack given dignity by the surrounding parterre gardens and the pictorial status of "factory portrait." As I said then, "here was a rendering of, and a way of thinking about, leeches far removed from the frame of frightening bushwalk encounter."

One detail led to another. The watercolour was just one object of many associated with the Grimwade family, most of which had come to the University of Melbourne through the Sir Russell and Lady Grimwade Bequest after Mabel Grimwade's death in 1973. Russell's collection of artworks, archives, decorative objects, and furniture reflected his many life interests as well as those of his father, F. S. Grimwade of said Felton, Grimwade & Co: a group of businesses producing a wide range of pharmaceutical, chemical, and scientific products. The leeches had been one of those pharmaceutical products distributed by the company in the nineteenth

¹ Barbara Campbell, *The Grimwade effect*, performance and exhibitions, Ian Potter Gallery, University of Melbourne, Parkville, 2003 as outcome of the Macgeorge fellowship of 2002.

² Barbara Campbell and Chris McAuliffe, "The Grimwade Effect," ed. Ian Potter Gallery (Parkville: University of Melbourne, 2003).

century until their use went out of fashion at the turn of the twentieth. At the time of my research a century later, leeches were back in medical fashion as assistants to microsurgical procedures.

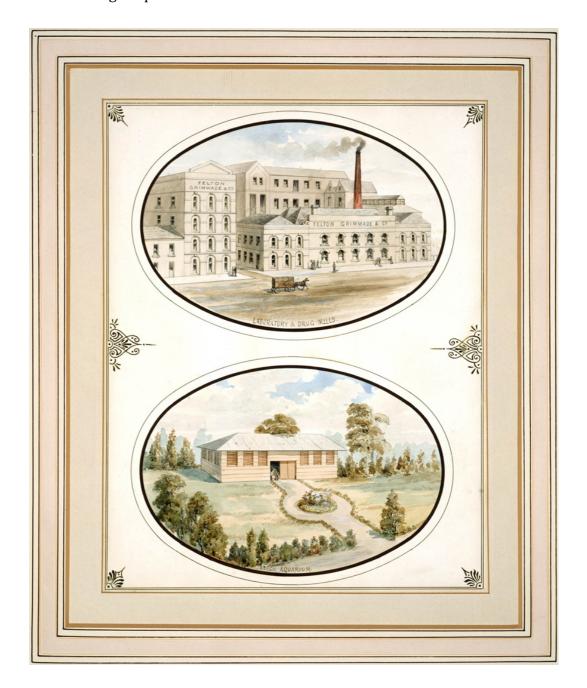


Figure 1. Artist unknown, *Laboratory & drug mills; leech aquarium*, (c 1884), watercolour and gold ink on paper, upper oval: 16.6 x 24.0; lower oval: 16.3 x 24.0, The University of Melbourne Art Collection, Gift of Professor John Poynter 1994. 1994:10010.

Leeches took me to the holding tanks at St. Vincent's Hospital, Melbourne, to a PhD researcher at Monash University, to a medical supplier on the banks of the Murray River at Echuca. In all these places I learnt how to keep and handle the leeches—an

aquatic species, *Richardsonianus australis* (Bosisto 1859; see Fig. 2)—according to medical protocols.



Figure 2. Barbara Campbell, *Leech aquarium*, 2003, glass, made by Les Gamel, lampworker, Chemistry Department Workshop, The University of Melbourne, 24 cm (h) x 19 cm (diam.). *Richardsonianus australis* leeches present during *The Grimwade effect* performance, sourced from Echuca, Victoria.

For the exhibition and performance stages, the leeches needed to be contextualised with the same level of respect on show as in that nineteenth-century watercolour. I commissioned special leech jewellery (a scoop and forceps), a blown glass aquarium, and turned Eucalyptus stands. The leeches needed to be fed in such a way that incorporated their biorhythms with my own. I'd made myself a costume and worked with various glass and wood workers to construct a performance-operating bench and a chambered heart model made of chemical glass components (Fig. 3).



Figure 3. Barbara Campbell, *Heart with boss-head, retort clamp and rod,* 2003, glass, brass, aluminium. Heart made by Les Gamel, lampworker, Chemistry Department Workshop, The University of Melbourne. 27 x 18 x 19 cm.

In the University of Melbourne's Ian Potter Gallery, the two leeches that chose to feed from my left femoral artery on the scheduled day determined the duration of the performance and the way it would go. After about 90 minutes when the leeches were sated and fell off, the performance time was concluded (Fig. 4).



Figure 4. Barbara Campbell, performance still, *The Grimwade effect*, 2003, Ian Potter Museum of Art, The University of Melbourne, inkjet print, 120 x 60 cm. Photograph: Patsy Vizents.

All the while I had been monitoring my own heart rate with a stethoscope, tapping out the rhythm on my wooden bench, a microphone relaying the beat to a speaker cone under the nearby glass heart assemblage. Displayed in the exhibition after the performance were all the associative objects and images that the leeches had guided me to make during our work together (Fig. 5).

I didn't know then that I could name this work an interspecies performance. My thinking at the time of making *The Grimwade effect* (2003) had been more anthropogenic, believing Russell Grimwade, through the agency of the bequest, to be the primary progenitor.



Figure 5. Barbara Campbell, Installation view detail, *The Grimwade effect*, 2004, Craft ACT Gallery, Canberra. Left to right: leech scoop, 2004, brass, aluminium and fibre, made by Katharine Edghill; leech forceps, 2003, aluminium, made by Johannes Kuhnen; inkjet print of performance still, 2004, 55 x 108.5 cm, photo: Patsy Vizents; performance costume, 2004, crepe bandages, cotton, blood, made by Barbara Campbell on glass coathanger, 2003, made by Peter Minson.

In describing the work *The Grimwade effect* just now I've sought to reinstate greater generative force to the leeches at all points of the process. Looking outside the spatiotemporal boundaries of the gallery performance, I can also see that I had been one more co-performer in a leech-human history that included performances

by those original Felton, Grimwade & Co. harvesters and handlers and their clients, the bleeders and patients, continuing through to the performances I'd witnessed at the holding tanks in Echuca, in the laboratory at Monash University, and the outpatients ward at St Vincent's Hospital. The leeches had brought all these theatres of knowledge together and, acting through me, had also highlighted a network of artisanal workshops across the University campus that included the glass flame-worker in the Chemistry Department, the wood machinists at the Grounds section, the wood steam bender in Architecture, and the metal lathers in Engineering. This assemblage of knowledge, materials, laboratory testing, and staged enactments was brought into being through a tear in the aesthetic fabric: leeches escaping from the representational frame of nineteenth-century watercolour painting to the realism of inter-agential performances.

Could the kind of realism that the leeches were helping me enact align with what Karen Barad has been calling "agential realism"? Within the agential realist account, "agency is not aligned with human intentionality or subjectivity... Agency cannot be designated as an attribute of 'subjects' or 'objects'... Agency is not an attribute whatsoever—it is 'doing'/'being' in its intra-activity." Barad's ideas are not easily glossed as her work entails nothing less than a "reworking of the familiar notions of discursive practices, materialization, agency, and causality" as well as proposing new notions such as intra-action (over interaction), the agential cut (as opposed to the Cartesian cut), and onto-epistem-ology ("the study of practices of knowing in being"). What is however immediately useful is the idea that agency is neither an attribute of humans solely nor one that can simply be granted to other animals through the largesse of humans. Agency, according to Barad, is enactment by iterative reconfigurings. It is constituted through enactment.

Like Barad, I reject the Cartesian cut between humans and other-than-humans, a critique that would become central to posthumanist arguments (associated most

³ Karen Barad, "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter," *Signs: Journal of Women in Culture and Society* 28, no. 3 (2003).

⁴ Ibid., 826-27.

⁵ Ibid., 811.

⁶ Ibid., passim, 829.

⁷ Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning (Durham: Duke University Press, 2006), 178.

strongly with Donna Haraway's early writing even though she didn't use the term). Both Barad and Haraway are careful to qualify their use of the term *posthumanism* to argue against the limits of *humanism* and not against the use value of the term *human* (that many in the technosciences have chosen to do).⁸ Indeed, perhaps as a result of misreadings of her earlier work, Haraway was compelled to write in 2008, "I am not a posthumanist: I am who I become with companion species, who and which make a mess out of categories in the making of kin and kind." During my doctoral work with shorebirds, I am clearly not working with companion species as Haraway is in *When Species Meet* or Jacques Derrida is in the opening scene of *The Animal That Therefore I Am.* Haraway's dogs are real. Derrida's cat is real. The shorebirds are real. They, the shorebirds, pull me in but their realness is neither fixed nor isolable. They, like Haraway, are continually in the process of becoming-with. They, like Barad, are continually forming agency in/through/with the world. They, like me (like the leeches I had intra-acted with earlier), are continually performing the process of being and of being-with.

What I felt for the shorebirds even before I met them properly, and what has compelled me in this research practice is something that Roland Barthes was trying to name all those years ago in *Camera Lucida*: more than interest, attraction, love, desire, "something more like an internal agitation, an excitement, a certain labor too, the pressure of the unspeakable which wants to be spoken". I've felt this compulsion many times during my work as an artist, my work with the leeches being just one example. Indeed, making work in response to social situations and histories rather than from within a more contained studio practice, I've come to trust in a certain harmonics: (what at first might appear as) external agencies setting off internal agitations.

It turns out that migratory birds have a homologous form of agitation, what the eighteenth-century birdkeeper and amateur ornithologist, Johann Andreas

8 Ibid., 428.

⁹ Donna Jeanne Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 19.

¹⁰ Dogs in Haraway's case; for Derrida, his cat is the object of philosophical contemplation. Jacques Derrida, *The Animal That Therefore I Am*, trans. David Wills (New York: Fordham University Press, 2008).

¹¹ Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (London: Vintage, 1993 [1981]), 18-19.

Naumann named *Zugunruhe*.¹² Naumann noticed that at certain times of the year his caged Golden Orioles would start getting restless and fluttery, particularly in the evening. Twentieth-century professional scientists Peter Berthold and Ulrich Querner describe the effect as like "flying with the brakes on."¹³ In the 1960s, biologist Steve Emlen made what we in the visual arts would have to describe as an "interspecies drawing machine" but which the science community recognised as proof positive that migratory birds become not only restless but, when placed in Emlen's paper funnel with an inkpad at the bottom, the birds' inky movement traces will strongly indicate the direction of their travel as well (Fig. 6).¹⁴

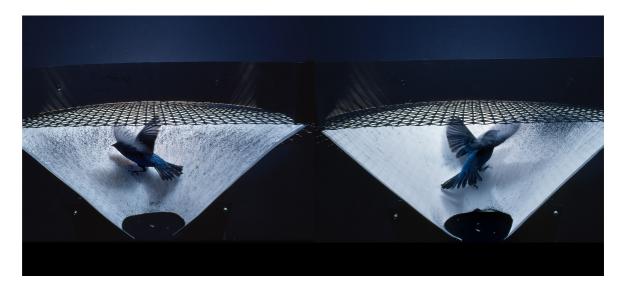


Figure 6. An interspecies drawing machine, more commonly known as an "Emlen funnel" after American biologist Steve Emlen. "The scattered tracks on the left illustrate how [an Indigo] Bunting exposed to urban electromagnetic radiation loses its bearing. The unexposed bird at right steers a clear course." Peter Friederici, "Star Trek: How Birds Use Electromagnetic Cues to Travel," *Audubon Magazine*, no. March-April (2015), https://www.audubon.org/magazine/march-april-2015/star-trek-how-birds-use-electromagnetic-cues. Photo: Jonathan Blair/National Geographic Creative.

Here then is one example of how instinctual drives of migratory birds can create an aesthetic link between drawing and biology and, on another register, a conceptual link between recognising the migratory restlessness of one group of animals (shorebirds) and the movement impulse in another (performance artists). Zug-un-ruhe, a word from bird observation, in this application means migration-

 $^{^{12}}$ Tim Birkhead, *The Wisdom of Birds: An Illustrated History of Ornithology* (London: Bloomsbury, 2008), 157.

¹³ Berthold, Peter and Ulrich Querner (1988) quoted in Marilyn Ramenofsky et al., "Migratory Behavior: New Insights from Captive Studies," in *Avian Migration*, ed. Peter Berthold, Eberhard Gwinner, and Edith Sonnenschein (New York; Berlin: Springer-Verlag, 2003), 101.

¹⁴ Birkhead, *The Wisdom of Birds: An Illustrated History of Ornithology*, 164-165.

un-rest and in another, performance practice, means movement-im-pulse. That impulse can be manifest conceptually and sensibly in creative practice. The birds have expanded my vocabulary in more ways than one, even into other languages.

Ex avibus: these two words make only partial sense even to speakers or readers of Latin. Ex avibus is not a sentence, but rather just a part of one—a prepositional phrase come adrift from its subject. The meaning of avibus, you may be able to guess at by way of its Latin root avi/a that we find in the English "avian" (pertaining to birds) and "aviatrix" (woman who can fly). Avibus does mean birds (plural) but so do aves and avium. In Latin, it all depends on the case: there are six and some special nouns have a seventh. A Latin scholar (or Wikipedia) will inform you that the preposition ex, meaning "from" or "out of," tells us that avibus is in the ablative case, and in this instance, it's expressing the means by which an action is performed. But what is that action being performed? What, in order to make the sentence and this thesis (both in its exegetical form here and in its exhibited form elsewhere) complete, is being performed ex avibus?

The historically valid answer to that question can be found in the original context of the phrase in Roman and pre-Roman Italic culture, specifically relating to the all-important divinatory practices performed by elected augurs, magistrates, and priests which I discuss in Chapter 4, "Romans." The will of the gods was to be sought and carried out publicly before any important decision of state could be ratified and enacted. Augural practice was a sophisticated semiotic system in which all forms and stages of ascertaining divine will were encoded and subsequently in need of decoding by those authorised to do so. One of the means for divining the gods' approval or disapproval was through signs conveyed *ex avibus* (from the birds)¹⁵.

The historical roots of augury in ancient Western civilizations date from about 700 BCE (when Homer mentions it in the *Iliad*) and its corresponding linguistic roots in Latin would, one would think, make it too distant or esoteric to have any contemporary valency. Part of the purpose of this thesis is to suggest otherwise.

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¹⁵ Jerzy Linderski, *Roman Questions II: Selected Papers*, vol. Bd. 44 (Stuttgart, Germany: Franz Steiner Verlag, 2007), 9.

To draw a line of enquiry from that buried time to now, I have been looking to the sky too, taking my performance cues from a specially chosen class of bird species: shorebirds (also known as waders).¹⁶ Hence the subtitle of my thesis: distributed performance by way of migratory shorebirds on the East Asian-Australasian Flyway (EAAF).

Between title and subtitle we've made an enormous leap in time, space and empires of knowledge. The rituals and functions of taking auspices in Rome would seem to be only knowable and relevant to an elite group of Classicists deciphering Latin texts and writing in the past tense. The evolutionarily determined behaviour of certain birds moving across the globe in order to breed would seem to be the province of environmental scientists, evolutionary biologists, ornithologists, and other scientists with a professional stake in the survival of this group of avian species. But what links the two epochs, places, and epistemologies—the front and back ends of my thesis title—is this question: how do birds lead humans to perform other versions of humanness? I am but one of those humans. We will meet others who are performing *ex avibus*: other humans, other animals.

As outcomes of my deliberately framed and enacted doctoral research, the many ways in which shorebirds have led me to perform other versions of self-as-human-animal will be explicated both through the chapters of this written thesis component and also through the complementary creative works that I have made in tandem with the writing during the doctoral research period. The different formal outcomes evident in the written and creative components of the thesis are the result of performative roles I've assumed in order to carry out the research. I have come to realise that it was the shorebirds that distributed different understandings of both performer and performance *in* me as I progressed through the research question and this is one of the ways I'd like the reader and viewer to understand my use of the term "distributed performance" in the thesis title. The different roles the shorebirds have assigned to me (and often to others too) are signalled by the chapter titles: "Surveyor," "Visitors," "Interlocutors," and "Romans." What I thank the birds for, in assigning me these different roles, is a

 16 "Chosen," but not in the anthropogenic sense where choice is a human-only faculty. More on this in Chapter 3, "Interlocutors."

certain freedom of movement to pass between fieldwork approaches that I would not necessarily have had any motivation to consult nor legitimacy to engage with academically.

My research intersects with the recently emergent field of animal studies where so many challenges to the entrenched habits of anthropocentric thinking and practice have been made. As Matthew Calarco says in his introduction to *Zoographies*, the question of the animal has now inflected "a wide range of disciplines within the humanities, social sciences, and biological and cognitive sciences" by shifting the critical focus from the narrowly human to human-animal entanglements. ¹⁷ While Calarco's own focus is philosophy and animal studies, an early, multi-disciplinary anthology edited by Tim Ingold titled *What is an Animal?* lists contributors based at university Departments and Centres of Philosophy, Archaeology, Biology, Social Anthropology, Molecular and Cell Biology, Humanities and Communications, Language and Semiotic Studies, and Anthropology and Sociology, some of whom I'll engage with in later chapters. ¹⁸

To the above list we must add the practices of artists (sound artists, moving-image makers, performance artists, intermedial artists) who, through their own empirical work in worlds extending beyond the human have envisioned and brought into being new formations of becoming-with other species. Rather than re-viewing the work of particular artists, I will instead point the reader here to important gathering sites for artists contributing to a multispecies praxis.

From his position as editor of *Antennae: The Journal of Nature in Visual Culture* (launched in March 2006), Giovanni Aloi has been able to review the work of many artists too numerous for one book (or thesis). However, when reviewing the field in 2012 Aloi used as "cornerstones" four particular works as a sort of enclosure for methodological and philosophical ideas canvassed by many other artists.¹⁹ The works he cites are: *nanoq: flat out and bluesome* (ongoing since 2001) by artist duo

¹⁷ Matthew Calarco, *Zoographies: The Question of the Animal from Heidegger to Derrida* (New York: Columbia University Press, 2008), 2. Calarco's own focus is to trace the question of the animal in modern and postmodern philosophy by way of Heidegger, Levinas, Agamben, and Derrida.

¹⁸ Tim Ingold, *What Is an Animal?* (Boston: Unwin Hyman, 1988).

¹⁹ Giovanni Aloi, "Deconstructing the Animal in Search of the Real," *Anthrozoös* 25, no. sup1 (2012).

Bryndís Snaebjörnsdóttir and Mark Wilson; *Dawn Chorus* (2006) by Marcus Coates (Fig. 7); *GFP Bunny* (2000) by Eduardo Kac; and *Augmented Fish Reality* (2004) by



Figure 7. Marcus Coates, *Dawn Chorus*, 2007, 14-channel HD video installation, 18 mins. Coates worked with sound recordist Geoff Sample to collect early morning bird song in a woodland in Northumberland. The recordings of individual bird songs were slowed down so that their paired human songster could imitate them. Coates videoed the solo human mimickers in their home environments. In the installation, the video was sped up again to return the sound to its bird frequency. Fourteen monitors, each with a human-bird songster were distributed in the gallery according to the birds' original placement in the woodland. Video preview: https://vimeo.com/38149102.

Kenneth Rinaldo. With the publication of *Art & Animals* in 2012 Aloi was able to expand the range of works and also provide a fascinating chronology of live animals in art exhibitions, beginning in 1934 with Philip Johnson's installation at the Museum of Modern Art, New York, *America Can't Have Housing*, that featured live cockroaches.²⁰ Other, more familiar, key moments Aloi mentions are Joseph Beuys's *Coyote*: *I Like America and America Likes Me* (1974) and Kira O'Reilly's *Falling Asleep With A Pig* (2009), a 72-hour co-habitation in a gallery with a pig named Deliah (Fig. 8). Closer to home, the trans-species creations of Patricia Piccinini, *Superevolution* (2000-01) and the performing human-fleas company of Maria Fernanda Cardoso's *Flea Circus* (1996) are also included. Aloi cites other authors who have also addressed the question of the animal through the work of visual artists, many of whom overlap with his own choices. Thus a canon begins to form.



Figure 8. Kira O'Reilly, *Falling asleep with a pig*, 2009, 72-hour performance, commission for *Interspecies: artists collaborating with animals*, touring exhibition. Cornerhouse, Manchester.

Source: http://www.artscatalyst.org/interspecies-manchester, accessed 17 July 2016.

²⁰ Art & Animals (London: I.B. Taurus, 2012).

Steve Baker's *The Postmodern Animal*²¹ allows for wider examples from representational practices, albeit with the ironising bent of postmodern deconstruction: for example, Mark Dion's *Taxonomy of Non-Endangered Species* (1990; Fig. 9); Damien Hirst's *The Physical Impossibility of Death in the Mind of Someone Living* (1991); and Jeff Koons' *Bear and Policeman* (1988). Ron Broglio, on the other hand, favours a phenomenological quest over a representational one in his *Surface Encounters: Thinking with Animals and Art*²² published just before *Art and Animals* and using many of the same artwork examples. As his title suggests, Broglio's



Figure 9. Mark Dion, *The taxonomy of non-endangered species*, 1990, toy animals in alcohol, animated Mickey Mouse figurine, ladder, shelves, glass containers, audiotape. Photo: T & R Henderson. Installed at De Appel, Amsterdam for the artist's survey, *Natural History and Other Fictions*. Source: https://deappel.nl/visit/programme/activity/?id=260, accessed 17 July 2016.

²¹ Steve Baker, *The Postmodern Animal* (London: Reaktion, 2000).

²² Ron Broglio, *Surface Encounters: Thinking with Animals and Art* (Minneapolis: University of Minnesota Press, 2011).

approach is a doubled phenomenology: in trying to think what it is to be human alongside other animals, Broglio uses the artist as his human specimen, the one he supposes to be already invested in a physical engagement with the world.²³ A recent welcome addition to the above is the work of Eben Kirksey with collaborating authors and artists through *The Multispecies Salon*, a project that has taken the form of continuing exhibitions, performances and fora as well as the eponymous 2014 anthology of essays by Kirksey, Barad, Haraway and others. In the publication's introduction, Kirksey and co-authors, Craig Schuetze and Stefan Helmreich propose a "multispecies ethnography" in which artists perform a "paraethnography" while ethnography itself is presumed to be a writing of/for/with a multitude of beasts (including humans).²⁴

As *The Multispecies Salon* makes evident, artists working in the interspecies field are also challenging their work methodology by adopting the practices, status, and discourses of the laboratory (over the studio). Critical Art Ensemble's engagement at the molecular level of biotechnology (since 1987) is one early and often controversial example.²⁵ Artist Natalie Jeremijenko runs a range of biodiversity projects (often described as clinics; Fig. 10), including OOZ (Zoo backwards) where humans and other animals interact under certain conditions but where she says animals remain by choice.²⁶ And the University of Western Australia's SymbioticA, the art-science lab established by Oron Catts and Ionat Zurr in 2000, has hosted over 60 artists experimenting across the gamut of the life sciences.²⁷

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²³ Ibid., xvii, xxi.

²⁴ The Multispecies Salon began in 2010 and is an ongoing project led by Kirskey. See the dedicated website for lists of artists, publications and events: http://www.multispecies-salon.org/. One outcome of the project is Eben Kirksey (ed.), *The Multispecies Salon*, (Durham and London: Duke University Press, 2014). For a thorough literature review of a multispecies ethnography see Eben S. Kirksey and Stefan Helmreich, "The Emergence of Multispecies Ethnography," *Cultural Anthropology*, 25, no. 4 (2010).

²⁵ Steven J. Kurtz, Lucia Sommer, and Critical Art Ensemble, *Disturbances* (London: Four Corners Books, 2012).

²⁶ Natalie Jeremijenko, "Projects," accessed 17 July 2016, http://www.environmentalhealthclinic.net/projects/.

²⁷ Oran Catts and Ionat Zurr, "Symbiotica," University of Western Australia, http://www.symbiotica.uwa.edu.au/.



Figure 10. Natalie Jeremijenko, Environmental Health Clinic and Lab, NYU, (test launch detail). *Goosing_ 771400Z*, 2004. Robotic goose, goose control system, uncaged feral geese in urban setting, and database of annotated audio and video clips, using php scripting, MySQL database on Apache webserver, dimensions variable. Collection De Verbeelding art landscape nature, the Netherlands.

Source: http://www.environmentalhealthclinic.net/portfolio_page/robotic-geese/, accessed 17 July 2016.

Distributed Performance Chapter-to-chapter

It will appear as we go from chapter to chapter and, later still, into the gallery space that I am your guide; but this too is a role I've been given by the shorebirds. In this dissertation you will be taken into disciplinary fields just as I was led into them by the bird species I was following. Following something—an idea, a technique, an animal—means not being in the lead. A lot of the time I, and therefore you, will be performing (sometimes uncomfortably) in fields occupied by other humans from other disciplines with their own reasons for engagement with the shorebirds. As the chapters unfold sequentially, moving from place to place, each place will resemble a stage on which relational ensembles form and express themselves through different modes of performance. It is a conceptual design that I've also learned from the migratory shorebirds. Unlike pelagic bird species, shorebirds can't feed from ocean resources, so they must migrate strategically, flying for long distances and only occasionally landing. These are called "staging sites." At each site, according to precise timings throughout the year, they form their own relational ensembles in the pursuit of life. In our Australasian summer, after the birds return from breeding in the Arctic Circle, they are again in our field

of view. The urge to be with them and to learn more is reignited. Their staging sites on the coastline of Australia become the stages for interspecies performance distributed amongst many performers and the occasional Performer. As the birds lead us to each staging site (or chapter), I will be asking the question, how is what's happening here, on this interspecies and inter-agential stage, challenging or indeed redefining previous assumptions about performance and Performance? In drawing out some propositions, chapter by chapter, I seek to *explicate* in written form what you will also find *implicated* in the creative work for this doctorate.

In Chapter 1 of this dissertation, "Surveyor," I show how waterbirds (of which shorebirds are a subset) first drew me into a networked relationship involving birds, technologies, scientists, landscapes, histories, embodied knowledge, and theoretical frameworks. And it had all started quite vicariously, through a radio program, tracking the latest fieldwork of environmental scientist, Professor Richard Kingsford, as he assessed populations of waterbirds during one of his annual aerial survey counts across Eastern Australia.

At that point of my engagement with my research question, very nascent, I was still years off actually venturing into the field to have my first, conscious, "face-to-face" encounter with shorebirds. Yet, I already felt I had performed with them through the medium of Kingsford. I was already *implicated*, in the sense that Michel Serres uses the word—of being evermore complexly enfolded²⁹—in this aerial performance. How was that possible? How could I have performed with birds I was yet to meet? This was the first generative question about the nature of performance and the one I seek to explicate in the first chapter.

In placing the Surveyor at the front of this thesis, my aim is two-fold: firstly, (somewhat nefariously), to implicate you the way I had been implicated; and secondly, to analyse the phenomenon of implication through reference to Actor-Network Theory (ANT).³⁰ Using Kingsford's waterbird survey as a case in point, I

²⁸ I begin here to use the capitalised Performer as a culturally marked role. Differences between Performer/Performance and performer/performance are further explained shortly in this Introduction and in Chapter 2, "Visitors."

²⁹ Michel Serres, *Rome: The Book of Foundations*, trans. Felicia McCarren (Stanford, CA: Stanford University Press, 1991), 80-81.

³⁰ Bruno Latour, "On Recalling ANT," in *Actor Network Theory and After*, ed. John Law and John Hassard (Oxford: Blackwell Publishers, 1999).

describe the complex assemblage in which, at first, Kingsford seems to be the only human actor co-performing with the birds, but, through different means of inscription and through different translation centres, the birds inhere and come to form different assemblages with other humans, creating a network of actors (or actants in ANT); me and perhaps you included. All these terms: actor, actant, inscription, translation centre, inhere, assemblage, and network, come from ANT, which I found to be a useful methodology for, if not definitively answering my question as to how I'd been enrolled as an actor in an avian performance, certainly clarifying the path ahead towards other staging sites, where I would find others likewise enrolled.

Chapter 2, "Visitors," begins with an invitation to come with me on a physical journey into "the field" (here used in its disciplinary as well as natural senses) where an encounter in the contact zone of human-shorebird interactions is anticipated. Like any expedition (and like any performance), preparations need to be made of the physical and intellectual kind. Regarding the latter, I chose to prepare myself in the role of participant-observer. This term comes from the social science discipline of Anthropology, specifically the methodology of ethnography. It's a useful role for me to adopt in the context of conducting fieldwork, for several reasons outlined below.

The practice of participant-observation occupies a relational tension with the pursuit of empirical knowledge. It maintains that experiencing something first-hand is essential to understanding that thing, while at the same time acknowledging that the culturally-based partiality of the participant-observer changes the cultural scene under observation. Just as "actor-network" (according to one of its most eminent exponents, Bruno Latour) is a term of two, often competing, forces coupled by a hyphen to make a third concept, so "participant-observer" creates a hybrid role for anyone entering an unfamiliar cultural field to adopt. In "Visitors," the specific cultural field I enter is one comprised of human shorebird enthusiasts gathering together at the Broome Bird Observatory (BBO) on the shores of Roebuck Bay, Western Australia, to *participate* (through the act of *observation*), in farewelling shorebirds at the beginning of their migratory journey through East Asia to the Arctic North. Participant-observer in this context is clearly a role others around me can also claim to be performing. This is the role's first use-

value in the field: I will not stand out as being more different than any one of the other different participants.

Secondly, participant-observation as an academically framed practice has migrated over the years from Anthropology to other areas of social science and humanities. One such path is traceable to the relatively recent appearance of Departments of Performance Studies in universities, mostly in the Anglophone world. Each university, naturally enough, will have its own pedagogical approach. For example, Sydney University's Department of Theatre and Performance Studies is the training ground for the study—though not the practice—of both big *P* Performance (culturally marked productions of performance art and theatre) and small *p* performance (socially marked, "everyday" rituals) and regards them not as oppositional but as occupying a continuum. In this chapter and in the research project overall I am conscious, in my self-described role as Performance artist, of enacting that continuum, not only diachronically, shifting from Performer to performer and back again as I physically move from site to site, but also synchronically, meshing the performer with the Performer to become a hybrid of the two.

Thirdly, having prepared for my role as participant-observer according to its disciplinary histories, I prepare myself for the more crafted task of the ethnographer: performing acts of writing in and of the field. This will become the means by which I, the performer, make my way in the contact zone of the Broome Bird Observatory, Roebuck Bay: participating as an already writerly observer. The writing that was produced *within* my first 24 hours at the Observatory *about* my 24 hours at the Observatory is the first performative document I make from this empirical fieldwork.

While the act of writing is made explicit through the role of the ethnographer, it is also implicit in the doctoral process. More contentiously, writing (as a branch of language) is also implicit in reinforcing the paradigm of "human exceptionalism": that one of the things that separates us from every other animal is the so-called "language faculty," itself assumed to be synonymous with superior intelligence. Therefore in Chapter 3, "Interlocutors," I begin by reviewing the arguments levelled against this increasingly tenuous, though subtly persistent, distinction.

In this chapter we move from language performed through writing to language performed as speech, bringing J. L. Austin's "performative utterances" (refined by John Searle as "illocutionary acts") to bear on the material inscriptions I'd gathered in the interspecies contact zone of Roebuck Bay, Western Australia. The illocutionary force of the shorebirds to create speech acts in humans, I later carry forward into the studio and gallery environment to assemble the intermedial work, *Well how about that*, a key creative component of my doctoral research.

While I perform in the studio, making new inscriptions in the wake of departing birds, the birds themselves perform their own long circannual migration and in so doing reinscribe the path we call the East Asian-Australasian Flyway with their massed, mobile presence. How they fare on their journey through East Asia, on the breeding grounds in the Arctic Circle and on the return journey south is key to their performance of individual and species survival. The magnitude of what the shorebirds do far away from human sight means that when the birds do make it back to southern skies and shores, their renewed presence in human midst is especially freighted with significance.

The ways that humans draw significance from bird sightings is the focus of Chapter 4, "Romans." Here I take my cue from Michel Serres's conception of time (contra Bergson) as crumpled or folded, to bring different spatiotemporalities into unexpected, creative proximity with each other. Whereas Serres uses the figure of the speeding Hermes to transport messages across time and space I will again rely on the migratory birds, since they've been flying in and out of human sight for millennia. Elaborating this idea, we will accompany the Roman augur, Romulus, as he makes his way to the Aventine Hill and prepares the space for the appearance of the birds. I will translate the arcane language of Livy, Cicero, Pliny the Elder, Ennius, and other Roman authors who wrote on augural practice and, with the help of a philosopher (Michel Serres) and a Classicist (Jerzy Linderski), transport it into the staging site of Werribee Sewage Farm, Victoria, where members of the Victorian Wader Studies Group gather in high expectation for productive and

³¹ Michel Serres and Bruno Latour, *Conversations on Science, Culture, and Time* (Ann Arbor: University of Michigan Press, 1995), 60-63.

³² Serres, *Rome: The Book of Foundations*; Jerzy Linderski, "The Augural Law," *ANRW II* 16, no. 3 (1986); *Roman Questions II: Selected Papers*..

spec-ific interaction. My findings from Werribee relating to human performances of physically and conceptually framed viewing directly impacted the making of the responsive video installation, *close*, *close* (2014; Fig. 11) another component of my doctoral work.

Throughout the trajectory of this doctoral journey the ethic I've followed has been to allow, as far as possible, the shorebirds to determine the *mise-en-scène*; both physically (I, we, you, who follow them from place to place and perceive their absence too) and intellectually, according to whichever metaphysic increases or thickens our understandings of performance in those places. This ethic, it should be said, coincides with rising sectoral concerns in ecology, philosophy, and art praxes, focused on our time of the Anthropocene. And so our first interspecies performance in Chapter 1, "Surveyor," is one in which an environmental scientist takes to the air to assess water quality by way of the birds. The birds in turn test the scientist's perceptual, physical and cognitive capacities. We are able to participate in this performance through the medium of radio.



Figure 11. Barbara Campbell, *close*, *close*, 2014. Single-channel responsive video projection, Kinect sensor, computer programming by John Tonkin. Photo: Marah Weston. As the viewer moves backward and forward in the gallery in relation to the screen/wall, the video aperture and related sound move up or down, revealing a different section of the multi-layered horizons of the shorebird scene.

In summary, what I aim to show in this written dissertation and the complementary creative works is a reciprocal movement between practice-led research—in which Performance contributes to knowledge in the transdisciplinary area of animal studies—and research-led practice—where performers in other animal studies disciplines form part of the relational ensembles from which Performances emerge *ex avibus*.

Chapter 1

Surveyor

We operate on many levels, waking and dreaming, as we make our way through a topic.¹

I am suspended in sleep, lying horizontal, a foot or so above the floor and a couple of storeys above the ground, safe in my own bed. At 7 am, as usual, the sounds of my clock radio begin to stir me. Fixed to ABC Radio National's newscast of that hour, what I hear in my hypnagogic state is not the authoritative tone of the news reader but an assemblage of sounds: a male voice counting rapidly in a tenor's frequency range and, at the alto range, the sound of an engine, distinctively a light aircraft engine. The voice is counting out what the eyes are apparently seeing. Through my own closed eyelids I can see them too. The numbers are modest but cumulative: "one White Ibis, five White Ibis, five White Ibis...." There is urgency in the voice. The sound of birds that might have once awakened humans in preindustrial times or untrammelled places is for me in my urban setting, replaced by a human vocal evocation of birds.

It was all over in a few seconds. I lay in bed thinking about the layered tracks I'd just attended. I reconstructed the event in the sky: the aerial choreography between birds and man in plane; multiple bodies moving at speed, above the earth, the inverted logic of the earthbound creature *above* the birds. Suspended in the air, the event inside the plane: man straining to keep a bead on the moving birds below, again at speed, brain processing vision into taxa and data, vocalising, speaking into microphone and recorder; the plane pitching with the currents, throwing the passengers' organs and limbs around. As the ABC journalist later

Richard Kingsford at 0:40.

¹ James Clifford in Alex Coles and James Clifford, "An Ethnographer in the Field: James Clifford Interview," in *Site-Specificity: The Ethnographic Turn*, ed. Alex Coles (London: Black Dog Pub, 2000), 71.

² Jayne Margetts, *Scientists Undertake World's Largest Water Bird Survey*, podcast audio, AM, 2:33, last modified 2008, accessed 05 September 2014, http://mpegmedia.abc.net.au/news/audio/am/200811/20081104am08-bird-survey.mp3. Voice of

informed us: for hours, for days, for weeks. Throughout the October and early November of 2008.

I was reminded of that story Rosalind Krauss tells us in the 1980s and again in the 1990s about a conversation between Michael Fried and Frank Stella, relayed to Krauss in the early 1960s.

"Do you know who Frank thinks is the greatest living American?" Michael asks me one day. And then, grinning at the sheer brilliance of the answer, he said it was Ted Williams, the great hitter for the Red Sox. "He sees faster than any living human," Michael said. "His vision is so fast that he can see the stitching on the baseball as it comes over the plate. Ninety miles an hour, but he sees the stitches. So he hits the ball right out of the park. That's why Frank thinks he's a genius."

Krauss saw the anecdote then, as Fried himself intended, as an allegory for modernist visuality in which:

[The] eye and its object made contact with such amazing rapidity that neither one seemed any longer to be attached to its merely carnal support—neither to the body of the hitter, nor to the spherical substrate of the ball. Vision had... been pared away into a dazzle of pure instantaneity, into an abstract condition with no before and no after.⁴

Come the late 80s when the Utopian ideals of pure vision had lost their hold, Krauss was arguing for a different kind of seeing that ran parallel to the modern painters championed by Greenberg. Krauss rounded up examples from Ernst, Duchamp, and the late Picasso for instances in which visuality is not reified in the pure instant of impact, but is rather resolving and dissolving alternately over time. She described this alternate, alternating vision as a "rhythm, a beat, a pulse, a kind of throb of on/off on/off on/off".⁵

³ Rosalind E. Krauss, "The Im/Pulse to See," in *Vision and Visuality*, ed. Hal Foster, Discussions in Contemporary Culture (Seattle, WA: Bay Press, 1988), 51-52; *The Optical Unconscious* (Cambridge, Mass: MIT Press, 1993), 7.

^{4 &}quot;The Im/Pulse to See," 52.

⁵ Ibid., 51.

I too was dazzled by the virtuosity of seeing exemplified by the man in the plane but I saw this vision as extending within the body in two directions: the first as an accommodation between the eyes *and* their "carnal support" such that vision is made possible *by virtue of* this particular body's ability to continuously correct itself, like a compass suspended in a gimbal; the second direction in which vision is extended is through the rapid processing of visual data into spoken word. Admittedly, it may not have the same kind of spectacular results as Williams wrought on the baseball field, but the man's rapid delivery in the plane that day spoke to me of a dizzy complex of corporeal and intellectual predisposition, practice, knowledge, and reflex.

In October 2016 Richard Kingsford, the man in the plane, a scientist, will conduct his 34th annual Eastern Australian Waterbird Survey, run by the University of New South Wales's Centre for Ecosystem Science. The objectives of the project, as stated on the website, are clearly delineated: "[a]erial survey[s] of waterbirds [provide one of] the few quantitative, large scale biodiversity datasets that can monitor changes in the distribution and abundance of 50 waterbird species, including threatened species, and the health of rivers and wetlands." The methodologies for conducting the survey are outlined on the same webpage and in detail in cited papers: "[a]ll lakes are surveyed during October each year from a high-winged aircraft (Cessna 206) with two observers, one each side of the plane, estimating numbers of waterbirds of each species onto digital audio recorders." More details are given and enumerated: numbers of square kilometres surveyed (2,697,000); length (30 km), quantity (ten) and degrees latitude (38°30'S to 20°30'S) of survey bands; number of waterbird taxa (50); height (30-46 m) and speed (167 km hr-1) of aircraft; taking in up to 2000 wetlands in 100 hours of flying time (Fig. 12).

This description of how the aerial survey is carried out is the same in substance as the one I'd pieced together in my awakening mind from the radio item related above, but here on the official website it is expressed in scientific terms, as befits

⁶ Richard Kingsford, "Eastern Australian Waterbird Survey," UNSW Centre for Ecosystem Science, https://www.ecosystem.unsw.edu.au/content/rivers-and-wetlands/waterbirds/eastern-australian-waterbird-survey. While the webpage claims 50 "species" to be counted, Kingsford corrects this to 50 "taxa" in our interview because at long range, identification to species level is not possible.

⁷ Ibid.

the expectations of government departments, university centres, the wider scientific community, and the general public. In the listening space of my bedroom on that November morning in 2008, I had no such expectations or inclinations.

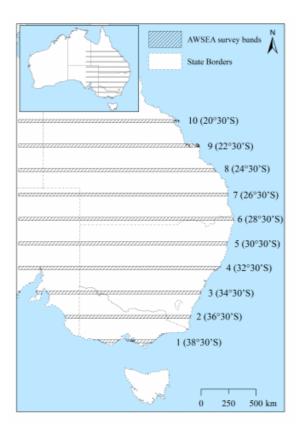


Figure 12. "Ten aerial survey bands (each 30 km in width), every two degrees of latitude, crossing eastern Australia to monitor up to 2000 wetlands and provide estimates for up to 50 species [sic] of waterbirds in October each year (1983-2009)." Kingsford, Richard, "Eastern Australian Waterbird Survey," UNSW Centre for Ecosystem Science. Source: https://www.ecosystem.unsw.edu.au/content/rivers-and-wetlands/waterbirds/eastern-australian-waterbird-survey, accessed 4 September 2014.

By isolating and therefore heightening the audio textures of the aerial survey, as the radio medium had allowed and the producer/journalist had exploited, an imaginative space was opened up for me, in which I was not only picturing the man in the plane, but I was also performing him in the plane. With my eyes closed, I could see through his eyes; the engine filled the space around me; my vocal cords strained in sympathy; my stomach pitched up and down. I was anxious to get the job done. Previous years had dictated the procedure—there was no diverting from the methodology now. Looking back on this radiophonic event, it felt like I was performing the role of Surveyor that Kingsford had affectively modelled for me.

Could I say therefore that this was my first performance directed by the birds? What made it so?8

At the time, I wouldn't have characterised what I'd been attending as a form of performance, least of all one actually co-performed by me. But I did wonder if Kingsford himself—despite the scientific exigencies of the waterbird survey—felt he was performing in some way. I went to interview him in his office at the University of New South Wales.⁹ It was March 2010, a few months after his survey months of October and November and just at the start of the academic year. His spatiotemporal reality had moved from counting waterbird taxa from the air to guiding fresh undergraduates in lecture theatres.

About ten minutes into the interview, I describe how, as an artist, I'm trained to look and how my vision needs to be constantly sharpened; I then ask Kingsford if he could feel something similar, whether "as you go deeper into the survey, in say day two, are your eyes somehow, is your vision shaped...?" His response, perceptively, begins with the general picture of a physically shaped landscape that informs and is formed by the logistics and goals of the survey and that these, being intrinsically linked—no land-*scape* without survey, no survey without landscape—produce a kind of body with a specifically tuned vision.

You've basically got wetlands on the east of the Great Dividing Range and then you go up and then we do all our surveys to the west. So, we go up the coast and do the edges of these survey bands then we go up and over—because there's nothing on the mountains—you don't have to [survey] across the Great Dividing Range. But as we go up the coast, there are lots of smallish wetlands and you can get your eye in and you basically find your air-legs again and you start to get your head concentrating on how many there are and what are the cues that you're looking for.

For Kingsford and his team, the landscape is divided up according to two overlapping systems: the general geography of the Southeast of Australia and the systematised geometry of the horizontal survey bands lain across it. The Great

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⁸ Questions I begin answering in Chapter 2, "Visitors."

⁹ Quotations following are from my transcribed audio interview with Richard Kingsford, Sydney, 20 March 2010.

Dividing Range is the defining topographical feature of the first but a negative space devoid of wetlands for the purposes of the second. The strip along the coast from northern Victoria to southern Queensland that spatially prescribes the starting point of each annual survey is also the temporal opportunity to tune the body (stomach, seated posture, head, eyes, cerebral cortex) to the task: that is, the performance of counting. All this is in preparation for a series of other-animal encounters. Enter the birds.

The most challenging [part] is where you find tens of thousands of birds, trying to get all those different birds, trying to store them somewhere in your brain, rushing past at different levels, different colours and... they're all overlapping, so you've got flocks going this way and flocks going that way, and you're trying to count in—you do make these logarithmic jumps, there are tens, you go up to hundreds, you go up to thousands. That's the maximum you'll count, a thousand of this and a thousand of that. Because, sometimes, there are thousands underneath you and going very fast as you go past.

The birds in their moving flocks test the limits of the human body's processing capabilities, not just in terms of numbers but also in terms of species identification.

So, we notionally say we count up to 50 plus taxa. The reason we say taxa and not species is that there are some things that we just can't tell the difference. Like there are two species of Little Grebes, even if you've got them in your telescope it's hard. And Egrets are difficult to tell for the same reason; we have Egrets and Large Egrets...

There are birds that form part of the scene but not part of the survey:

Occasionally you'll get a Sea Eagle or something that's not identified as a wetland bird, occasionally you'll see emus on the edge of the wetlands or Bustards. We don't count them, we call them obligate wetland birds. That's why we're going from wetland to wetland. There are some grey areas: some of the Ibis will forage away from wetlands. They might feed somewhere else rather than on your actual wetland.

And there are birds that form part of the picture at a time of day out of synch with the survey's flying limitations:

You'll often see Parrots come to drink and they'll generally come at sunset. Generally we're flying in the middle of the day, get away early before it gets too hot. You've got to refuel. The plane can only fly for three to three-and-a-half hours before it has to refuel and then go on. Sometimes you fly over areas where there are Parrots and Pigeons and all sorts of birds—Budgies and... you see them, but you don't count them formally.

But despite the limitations placed on the eye either physiologically, cognitively (internally), or logistically (externally), there is the assertion of technological and computational superiority of the human over its machinic replacement.

Sometimes you will know what a species is: it hasn't flown, it's just stuck in a corner somewhere of the wetland, but because it hasn't flown, and it's sitting in a certain way and it silhouettes in a certain way, you know what it is but your camera would never see it. It's just the shape of the bird: how low it's in the water, even that it hasn't flown [yet] and that [ability to see and identify] just comes with years of experience.

In each of these passages the birds perform a functional role for the survey. They are either counted or not counted according to the use-value of what they indicate. The counting is only carried out at certain times of the day and at a particular time of the year, according to the long-established conventions of longitudinal scientific surveys, that is, of comparing data from year to year in "as like" circumstances. Furthermore, once the flying birds are converted into data they can be functionalised to an even greater semiotic degree.

It's really the composition of those birds as well. You can break them up into species, but because we look at the data in bits that are manageable, we tend to put the birds into what we call functional groups and we define functional groups as: what are those birds that feed on vegetation; what are those birds that feed on invertebrates; what are those birds that feed on fish and there might be two or three other categories. And it allows you then to compartmentalise... If everything's declining and all those functional groups

are declining then we can say something is basically wrong with how the system is functioning. In some of our wetlands, the fish-eating birds are stable, but all the rest are in decline so you can say something about fish populations as opposed to other groups and the way the system is managed.

By this point in the interview, we are a long way (physically, conceptually, linguistically) from flying above the birds. The birds have been put back in their semiotic place as referents for data that will support particular arguments to do with environmental management. From an instrumentalist standpoint the birds have merely been a means to an end. But as the sociologist of science, Bruno Latour says, "science is no longer merely 'accurate,' because to be so it would also need to be unmediated, unsituated and unhistorical." 10

I want to return now to the objectives of my research to ask, what if we were to parse Kingsford's procedures from the perspective of performance?

How much of what I've described until now can be convincingly thought of as performance, on the part of the human being, and perhaps shared by the human being and the birds? And what kind of performance would that be? Is the scientist, Kingsford "performing" his science (at all times or only in certain circumstances) even if he doesn't think that's what he's doing? If so, what can be gained in thinking of what he's doing as performance, why not simply call it carrying out his job as a scientist, using scientific methodologies? If I can venture a quick answer to that last question before moving on in more detail, it would be to say that if we did not look at the processes by which scientific insights or analyses are carried out by humans such as Kingsford, we'd be denying ourselves access to the many ways humans create particular versions of themselves as they create knowledge. Put another way, the richness of discovery in the scientific realm of the survey counts is not just evidenced in the papers and data that are extracted from the survey but in the performance of the survey itself.

uno Latour *Pandora*

¹⁰ Bruno Latour, *Pandora's Hope: Essays in the Reality of Science Studies* (Cambridge, MA: Harvard University Press, 1999), 428, quoted in Nigel Thrift, "Performance and Performativity: A Geography of Unknown Lands," in *A Companion to Cultural Geography*, ed. James S. Duncan, Nuala Christina Johnson, and Richard H. Schein (Malden, MA: Blackwell Pub, 2004), 124.

The most useful tool at hand by which to parse Kingsford's scientific quest *as* performance is the theory-cum-methodology set up to do that very thing in the mid-1980s: Actor-Network Theory (ANT), its main proponents being Bruno Latour, Michel Callon, and John Law.¹¹

While not a tool of science as such, ANT is a methodology for describing science according to the key role it plays in forming society. Thus, ANT is already playing an operative role (I would say a performative movement) in translating the techniques of science into the techniques of society. While science (and technology) are not the only contributors to social formation, ANT's proponents did use scientific practice as the basis for their own early theoretical formulations and case studies, not in order to reveal and/or replace scientific facts with social facts but to show that society is "an ongoing achievement... in which science and technology play a key part." 12

In order to see how society is an ongoing achievement, we return to the key terms: Actor-Network taking note of the hyphen. The hyphen forms a single unit that "embodies a *tension*"—as John Law puts it—"between the centred 'actor' on the one hand and the decentred 'network' on the other." Again, a performative quality (after J. L. Austin 15) is present in the very act of conjoining those terms though it is by no means a performativity limited to speech acts. And neither would I want to limit it so, for there is much more performance to be excavated when the methodology itself is applied.

¹¹ Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard University Press, 1987); Michel Callon, "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay," *The Sociological Review Monograph* 32 (1986); John Law, "Technology and Heterogeneous Engineering: The Case of Portuguese Expansion," in *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology: Anniversary Edition*, ed. Wiebe E. Bijker, Thomas P. Huges, and Trevor Pinch (Cambridge, MA: MIT Press, 2012).

¹² Michel Callon, "Actor Network Theory," in *International Encyclopedia of the Social & Behavioral Sciences*, ed. Neil J. Baltes and Paul B. Smelser (Oxford: Pergamon, 2001), 62.

 $^{^{13}}$ Leaving out, for the moment, the T for Theory, for as Latour himself admitted, calling it a theory was problematic, preferring to call it a methodology. Latour, "On Recalling ANT," 20.

¹⁴ John Law, "After ANT: Complexity, Naming and Topology," in *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology: Anniversary Edition*, ed. Wiebe E. Bijker, Thomas P. Huges, and Trevor Pinch (Cambridge, MA: MIT Press, 2012), 5

¹⁵ J. L. Austin, *How to Do Things with Words* (Oxford: Clarendon Press, 1975 [1955]). Discussion of performatives follows in Chapter 3, "Interlocutors."

Beginning with the concept of the "actor," what ANT proposed was to consider all elements within a network as having the potential for agency; agency that is determined not by inherent qualities but within relational assemblages. In the case of the scene in the plane, the actors would most apparently include Kingsford and the other humans, the pilot and the co-surveyor looking out the other side of the plane. More controversial at the earlier propositional stage of ANT, was the inclusion of nonhumans, and not just other animal organisms or surrogate human machines but also inanimate beings, materials, and instruments such as laws and texts. As a way of indicating the inclusion of these other actors that don't take the human form, the term *actant*, borrowed from semiotics, was sometimes used instead of "actor." Actant will be my preferred term here given the confusions that easily arise when using the word actor in relation to performance.

"Taking seriously the agency of nonhumans," 16 throws open the scene in the plane to a much wider horizon than that viewed through the eyes of the human actants. Firstly, of course, there is the plane itself, conceived since at least Da Vinci's time as a prosthetic machine to facilitate the human desire for flight. But as we see from one of Kingsford's passages above, it is not just a prosthetic but also an actant with considerable agency for dictating the spatiotemporal terms of the annual surveys. On each day of the survey, while it facilitates the traversal of the survey bands at an optimal height, it also places limits on the duration and nature of the work. With only three and a half hours of fuel in the tanks, all relationships are temporarily suspended or re-ordered during the refuelling time on the ground: counting voices are stilled, tape recorders are paused; human-to-ground perspectives are altered; the light changes while the birds keep moving.

Other nonhuman actants close by the humans include the microphones, voice recorders, and maps. Outside the plane there are actants to be avoided (wires in built-up areas) and the powerful actant of the land itself: its scaped features of waterways, coastline, and that forbidding presence of mythic proportions, the Great Dividing Range (GDR). One has only to think of the grand landscapes of Eugène von Guerard (Fig. 13) and the epic narratives of Blaxland, Lawson, and

¹⁶ Cassandra S. Crawford, "Actor Network Theory," ed. George Ritzer, *Encyclopedia of Social Theory*

⁽Thousand Oaks, CA: SAGE Publications, Inc.), http://dx.doi.org/10.4135/9781412952552. 1.

Wentworth to see what force of agency the GDR has brought to bear on the formation of a national consciousness. In Kingsford's account, the GDR cuts a great negative, non-counting swathe across the survey area, separating the coastline of the east from the survey bands spreading out horizontally (as the map is read) to the west.

Perhaps the nonhuman actants of greatest agency within the survey are the waterbirds but in order for us to fully appreciate their importance we must go to the next term of ANT: Network.



Figure 13. Eugene Von Guérard, *North-east view from the northern top of Mount Kosciusko*, 1863, 66.5 x 116.8 cm, National Gallery of Australia collection, NGA 73.645. Officially renamed Kosciuszko in 1997, the Kosciuszko National Park is at the southern end of the Great Dividing Range and is partly overlaid by Band 2 of the Eastern Australian Waterbird Survey (Fig. 12).

It is only through association with other actants that any of the actants so far named above (and there are many more) can be identified as having agency. Without being able to enter into networked associations, according to ANT, none of these actants have any *a priori* substance or essence. In other words, it doesn't make sense to speak of the plane as actant without the relationship it establishes with the people in it, the geographies it flies over, the fuel it consumes, the technical piloting skills it requires, the wires it misses, the birds it flushes, the survey it facilitates, and so on. The plane acquires its meaning through coming into

a networked relationship with these other actants. And of course, taking on another role, in relationship to other networked actants in other circumstances (or frames), the plane would change its meanings again. The plane would not be an actant if it were reducible to a fixed entity. Nor would it have agency if its effects were untraceable in the accounts (my interview with Kingsford being one such account; the survey dataset being another).

Applying this idea of the networked actant to the waterbirds, how might we describe their performance with the surveyor Kingsford? Firstly, we would have to jettison the traditional (theatrical) idea that Kingsford is the capital *A* Actor and the waterbirds his props within a staged drama in the sky. According to ANT and the newer performative approach¹⁷, Kingsford, the waterbirds (and the sky itself) can all play an agential role, the ANT argument being "that though some things are fairly consistent in the way in which they act, at least in principle they could have acted otherwise, and then the whole performance might have come unstuck." And we'd have to hold this line in the face of Kingsford's own admission that the waterbirds serve a function as data. This translation of birds to data is in fact another layer of performance, one that I'll return to shortly. For now, we have only to listen to Kingsford again here to see just how co-performative the birds are:

... tens of thousands of birds, trying to get all those different birds, trying to store them somewhere in your brain, rushing past at different levels, different colours and... they're all overlapping, so you've got flocks going this way and flocks going that way, and you're trying to count...

The waterbirds are performing in a networked association with the water below, the air currents around them, and each other. They are moving collectively according to species, in different directions, at different heights, different speeds, their wings reflecting the available light to form different colours and patterns, each flock composed of a different number. All these variables and capabilities of

¹⁷ See primarily, Karen Barad, "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter". Also Nigel Thrift, "Performance and Performativity: A Geography of Unknown Lands" and John D. Dewsbury, "Performativity and the Event: Enacting a Philosophy of Difference," *Environment and Planning D: Society and Space* 18, no. 4 (2000).

¹⁸ John Law and Vicky Singleton, "Performing Technology's Stories: On Social Constructivism, Performance, and Performativity," *Technology and Culture* 41, no. 4 (2000): 771.

the birds performing within networked associations of multiple actants *make* the surveyor Kingsford perform to the very limit of his own corporeal-intellectual abilities. While previously it seemed that Kingsford was "merely" using the birds for the purposes of gathering data that would in turn indicate water quality, in this quoted moment and in others, it's evident that the birds have *recruited* Kingsford (the ANT word for this phenomenon is enrolment) into a networked performance, one that is similar to previous performances of the annual waterbird survey but in which no single survey is substitutable for another. There is no "ideal" survey; there are survey performances in which all the actants "could have acted otherwise." Seen through the ANT lens, all these actants, including of course Kingsford himself, are "more complicated, folded, multiple, complex and entangled" than an objectivist approach (human subjects working with inflexible objects), would reveal.¹⁹

Returning now to that other layer of performance I alluded to above—the translation of birds to data—I want to draw out another aspect of ANT that is important in showing how (and not only showing, but also producing) connections between the actants in a network are performed. Simply put, the waterbirds in Kingsford's surveys reveal themselves as agential actants through the inscriptions made by Kingsford for the purpose of his studies. Inscriptions most often take the form of written papers but can take any other form in which the entities being studied can be "made to write." Kingsford gives a clear account of the sequencing of bird inscriptions in the following section of the interview.

We record on little cassette recorders and then we generally, part of the pain is, after spending seven hours in the plane, you need to spend another two hours transcribing your tapes onto paper. So, what's the wetland? Which species? All that stuff, just so you don't lose it. You get malfunctions with tape-recorders and all that sort of business²¹. So you try and do that, and also you don't want a huge amount of work when you get back because there's a lot of work involved in having that amount of data. But once it's back here it

¹⁹ Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (New York; Oxford: Oxford University Press, 2005), 144.

²⁰ Callon, "Actor Network Theory," 62.

²¹ In ANT's terms, they could have acted otherwise causing the performance to come unstuck.

gets put into Excel spreadsheets and it gets imported into the database. Checks are done... Once it's in there it's in this mega database, so then: there's a wetland, what birds were there? That's if you like, the core of the dataset that's available and then if we want to actually interpret that data, depending on what our questions are, we'd then be able to pull out a wetland and say what's happened to that over time or if you wanted to see which are the most important wetlands in the landscape, then we'd pull them all out and interpret those in terms of the broad landscape.

Sight to voice; voice to tape; tape to written data sheets; sheets to Excel documents; documents to data. What ANT would want to show through use of the term *inscription* is that rather than the waterbirds being left behind in the "real world" of the wetland environments, they circulate with the inscriptions. They inhere there *and* they stay in circulation with other actants in different frames of their co-agential making. In the writing up of papers, at the "translation centre"²² that is the UNSW Centre for Ecosystem Science where Kingsford works, different inscriptions can be combined in different ways to tell new and compelling stories (other inscriptions).

It should also be evident that the stories told in those papers and reports are not the only kinds of stories to be told. After all, I've been quoting at length from a story told in the form of an interview generously given to me by Kingsford. There were also those other stories I referred to earlier that took different forms because they were combined in different ways at different translation centres: the ABC radio story and the Centre for Ecosystem Science website's account of the Survey's objectives. This chapter too has become a new translation centre in which I've already combined those three inscriptions with others.

Each iteration (each performance) of the Surveyor's story, though containing many similar actants, includes different actants within its network and thus changes the nature and effects of each performance. As I said, when describing the powerful effects of hearing the Surveyor's story on the ABC, the unique agential capabilities of the radio medium as actant and the producer/journalist who'd put the story

²² Ibid., 63.

together as actant/s had *enrolled* me (*allowed* me was how I previously put it) as another actant, thus producing an even more complex, entangled performance than the one played out in the sky.

There is another aspect to this concept of enrolment that further accounts for the ways Kingsford forms a relational assemblage with the waterbirds and how I was later enrolled and that is through the seemingly very unscientific word: charisma. Twice in our interview Kingsford mentions the charismatic quality of the waterbirds and that this quality has been both useful in garnering public, media, and institutional support but that it has also led to a certain amount of objection by other biologists. In defence of his project, Kingsford admits that it is the waterbirds' charisma that allows him to tell more compelling stories "than if you were talking about diatoms or river red gums."

The British geographer Jamie Lorimer provides useful insights here in his analysis of "nonhuman charisma" which he breaks down into a three-part (ecological, aesthetic, and corporeal) typology. In providing such analysis, Lorimer addresses one of the early-stage critiques of ANT: rather than emancipating nonhuman agencies, the critics argue, it "struggled to capture both the specific capacities and creative potentials of different bodies and the charged and open-ended nature of any event." The charismatic qualities particular to the nonhuman actants in the waterbird survey provide a more nuanced account of the survey as an affective multispecies assemblage. (It can additionally provide deeper understanding of the power of non-species actants such as the survey aircraft and Great Dividing Range mentioned above.) Applying Lorimer's three-part typology of nonhuman charisma to the annual waterbird survey also provides another perspective on Kingsford's own performative achievements within the survey. Like ANT, Lorimer's thesis on nonhuman charisma is relational, whereby *nonhuman* properties are perceived as charismatic *by humans* according to the affordances of both. 25

²³ Jamie Lorimer, "Nonhuman Charisma," *Environment and Planning D: Society and Space* 25, no. 5 (2007): 911, 916-923. Lorimer uses the term nonhuman, whereas I prefer other-than-human. ²⁴ Ibid., 913.

²⁵ As Lorimer explains, the concept of *affordance* comes from the ecological psychology of James Gibson. "Affordances are the inherent, ecological characteristics of a nonhuman in relation to the phenomenological apparatus of the body (human or nonhuman) that encounters and perceives them"; whereas "*affect* takes this understanding of affordances further in two ways. It first extends

The first in Lorimer's typology is "ecological" charisma, which takes an animal behaviourist approach, looking at how each being (human or other-than-human) makes sense of the world through what it can achieve in its particular environment according to its own bodily affordances. We can see that while birds have wings that afford self-generated flight and humans do not, Kingsford's ability to find an affordance with the birds by enrolling the agency of the plane (and instruments such as funding and institutional support) brought him into unique proximity with the performance of his charismatic avian agents. Even outside the terms of the survey, when the plane was on the ground for refuelling, other birds (evening birds, non-waterbirds) were exercising their own charismatic force and possibly expanding the spatiotemporal limits of the survey event.

Stemming from ecological charisma are "aesthetic" and "corporeal" charisma, which are closely interrelated through the affective register.²⁷ These types of charisma may be harder to detect through the "professionalised" talk of Kingsford than when listening to amateur birdwatchers who readily speak of bird aesthetics and behaviour as we will soon see in Chapters 3, "Interlocutors," and 4, "Romans." However, what stands out as significant in our interview are these three statements from Kingsford (in order but not contiguous): "you know I really like waterbirds, obviously"; "I love going up. It's exciting. I'm a good flyer, which you've got to be"; and "only five per cent of the wetlands are what you'd call incredible bird places. And so there's always an anticipation as you're coming up to one of those areas." In succession, Kingsford expresses attraction to avian others; to the kinaesthetic thrill of corporeal proximity; and to the anticipation of performing his particular version of human (his skill for managing rough flying as well as his intellectual abilities) with birds in particular ecologies. These statements of affect within our interview make up only a small part of what was said, Kingsford's concern being more with communicative competence than with affective

beyond the ecological to encompass the psychological and the emotional responses triggered by these embodied encounters. Second, a concern with affect implies a more sustained concern with process." Ibid., 914. On affordance, see James J. Gibson, *The Ecological Approach to Visual Perception* (Boston: Houghton Mifflin, 1979).

²⁶ This thinking is based on Jacob von Uexküll's theory of the *Umwelt* which I discuss further in Chapter 3. Lorimer, "Nonhuman Charisma," 916.

²⁷ Lorimer stresses the difference between affect and emotion. "Affect is understood as a collection of shared and interconnecting forces operating between bodies, whereas an emotion is the subjective encoding of the experience of these forces." Ibid., 914.

performance.²⁸ But in that ABC radio report on the waterbird survey that I heard, the birds' charismatic quality inheres not so much in the few words of (what radio news calls) "actuality" of Kingsford in the plane but in his performance of those words. It took only a few seconds to sense the charismatic affectivity of the birds within the performance of the surveyor. At that moment Kingsford became a mediator of affect, allowing the birds' charisma to flow through and potentially transform other listeners-become-actants.

Actor-Network Theory has helped me understand how each actant is refreshed in circulation with other actants of a network, and how dynamic this process is (the implication of the hyphen). One of Latour's slogans for the ANT approach is "you have to follow the actors themselves" (which of course includes animals other-than-human) because it is the actors who, unlike the analysts, are using more than one metaphysic and thereby open the endeavour to more uncertainties and through this provide thicker accounts.²⁹ What was awakened on that morning in October 2008 in the thicket of an account of waterbirds surveyed from the air in a plane by humans, was my own consciousness of being an actant in these accounts, and that the charismatic quality of the birds had not only enrolled Kingsford in the networked performance of the survey but had powerfully enrolled me that morning in the expanded network of the radio performance. It would come as a relief to be given the licence to follow other-than-human actants (though fully realising that the networks will inevitably involve human ones too).

My question and methodology were starting to take shape. In how many other networks would the bird actants allow me to circulate? In the early stages, and outside the science of sociology context of Actor-Network Theory, this question took a slightly different form; one in which the word actor was not yet strong enough to convey the full conviction of the multi-agential enterprise, and so I ascribed the role of director to (what I've been describing here as) the avian

2004), 56-80.

²⁸ The difference between "competence" in language and its application or "performance" are attributed to linguist Noam Chomsky, *Aspects of the Theory of Syntax* (Cambridge: MIT Press, 1969). They echo the divisions between *la langue* and *la parole* as defined by earlier French linguist, Ferdinand de Saussure, *Course in General Linguistics*, trans. Wade Baskin (New York: Philosophical Library, 1959 [1916]). For an overview on the linguistic approaches to the performance of language, see Marvin Carlson, *Performance: A Critical Introduction*, 2nd ed. (New York: Routledge,

²⁹ Latour, Reassembling the Social: An Introduction to Actor-Network-Theory, 61.

actants. For the last few years, I've been asking: "what are the birds directing me to do now?" My account of these networked encounters on the East Asian-Australasian Flyway is what follows.

Chapter 2

Visitors

In our country, this is the way we say Hello.

It is a diagram of movement between two people.

It is a sweep on the dial.

In our country, this is also the way we say Goodbye.¹

I become a member of the Australasian Wader Studies Group (AWSG). This process is no more complex than paying a fee according to my current status as student and, at the same time, providing such details to the incorporated body that I may be communicated with about the things that I now vouch interest in, namely birds of a certain kind—wader birds.

In one of the first communiqués from the AWSG—their regular printed members' newsletter, *Tattler*—I see a notice for an upcoming six-day course conducted by staff at the Broome Bird Observatory (BBO) in the western Kimberley area of Western Australia. The course has the alluring title, "Wave the Waders Goodbye."

Waving. Such a performative gesture; one that is usually thought to be the preserve of human social interactions and yet here is an invitation to wave to other vertebrates, but of a whole other class: birds with which I was not yet familiar.

Wave. Hold up the hand with elbow bent or straight and move the hand from side to side. You can decide how much of the arm to engage, in what pattern through the air the hand will take, the duration and speed of the movement. When starting the movement, try to carry out the gesture without vocalisation.

Wave (the imperative case). Come. Wave, I invite you, I entreat you. Come and wave *with* others: other humans. And wave *to* others: other animals. Send out a signal: hope for a response. A wave comes with the expectation of response does it not? How might these animal others respond? A wave is a gesture of communication, a test to ascertain how the encounter might proceed. As Laurie

¹ Laurie Anderson, "Say Hello," in *United States Live* (Warner Bros, 1984).

Anderson wrote in her own anxious musings on extraterrestrial communications quoted at the head of this chapter, there is the anxiety that it may not proceed well, that it may fail to launch altogether.

And what of those two other suggestive words: waders and goodbye? What or who are the Waders exactly (a group of some kind, given the plural) and where are they going? For how long? Wherever they're going and what/whoever they are, well-wishing is required in some as-yet-unspecified ritualistic sense. Will they understand our gesture as Goodbye or confuse it for Hello?

Speculating on the rich performative qualities of all these terms, "Wave the Waders Goodbye" strikes me as the working title for a piece of conceptual, participatory, interspecies, site-specific, "non-matrixed" performance-making, one that assumes all the actants—birds, humans, Observatory, season, environment—to be agential in how any possible performance might unfold. I enrol as course participant in anticipation of what other kinds of participation might reveal themselves, and book a flight to Broome.

Preparations of a Participant-observer

By casting the "Wave the Waders Goodbye" course as a potential piece of interspecies performance, I am already preparing myself to appear in the "scene" in some role or perhaps many. Every performance, even the non-matrixed kind, presumes a degree of preparation. The role of course participant has been given to me by the institutional actant of the Broome Bird Observatory. The BBO wardens have sent me some preliminary guidance as to how to prepare for that role. Their helpful list of things to pack includes recommended clothing (much of it emphasising the kind of protection one needs in a potentially hostile natural environment) and objects: binoculars, camera, torch, a tripod, and scope (the last two are optional). The clothing and objects may soon play their own roles as costumes and props.

hael Kirby's term "non-matrixed performance" refers to perf

² Michael Kirby's term, "non-matrixed performance" refers to performers "not imbedded in the matrices of pretended or represented character, situation, place and time." Michael Kirby, "On Acting and Not-Acting," *TDR/The Drama Review* 16, no. 1 (1972): 4.

If performance is one framework in which to construe the course, another is Anthropology, albeit one where "culture" is expanded to include subjects beyond the human only. The notice from the BBO to wave the waders goodbye is therefore also an invitation to fully engage in an empirical methodology based on what fieldworkers in Anthropology call participant-observation. Furthermore, I will not be the only course enrolee who can claim to be a participant-observer since observation is literally built into the function of the Observatory and birds are the designated subjects. In the description from a distributed notice for the 2004 course, bird enthusiasts are invited to "share in the natural peak of shorebird migration. Bird identification is made easy as the waders depart the shores of Roebuck Bay in vibrant breeding plumage."3 I infer from this that not only will participants be sharing with like-minded bird lovers in the wonders of a natural spectacle; but as well, since it is the migrating shorebirds who will be reaching a "natural peak" of putting on breeding plumage in preparation for annual migration, it is the *birds* who have given us the role as observer. In this simple way, in advance of our meeting, the birds have already assumed a role as director. When they perform as shorebirds in the present tense of migration, our piece of direction is to match their commitment with our own as audience member. I for one will want to stand on the beach in front of the Broome Bird Observatory and wave the waders goodbye with full presence as the waders will expect and, in their collective directorial role, will demand of me. In this way, the birds and I have already established a compact, a priori, between director and observer-as-performer or, to borrow Augusto Boal's neologism, as spectactor.4

My imminent insertion into the scene at the BBO as both observer and performer intersects with a now well-established history between the fields of Anthropology, Sociology, and Performance Studies.⁵ Largely through anthropologist Victor Turner's foundational interdisciplinary dialogue with theatre director/scholar

³ Birding-Aus, "Broome Bird Observatory Courses," http://bioacoustics.cse.unsw.edu.au/birding-aus/2004-02/msg00242.html.

⁴ Augusto Boal, *Games for Actors and Non-Actors* (London: Routledge, 1992), xxx, xxxi; in Quetzil E. Castaneda, "The Invisible Theatre of Ethnography: Performative Principles of Fieldwork," *Anthropological Quarterly* 79, no. 1 (2006): 80. Boal's original spelling of the term is *spect-actor*. ⁵ This history is outlined in Chapter 1: "The performance of culture: Anthropological and

ethnographic approaches" in Carlson, *Performance: A Critical Introduction*, 11-30.

Richard Schechner,⁶ the texts and techniques of ethnography still play an important role in the relatively short disciplinary history of Performance Studies in academia. My own scene of encounter with these techniques takes place in the photocopy room at the Department of Theatre and Performance Studies at the University of Sydney, hardly a rich sensorial setting but an important moment of initiation nonetheless. From his personal teaching resources, Paul Dwyer hands me excerpts from *Argonauts of the Western Pacific* published in 1922 and *Diary* from the same period by Polish-born anthropologist Bronislaw Malinowski.⁷

Imagine yourself suddenly set down surrounded by all your gear, alone on a tropical beach close to a native village, while the launch or dinghy which has brought you sails away out of sight.⁸

You might recognise the passage from *Argonauts* (subtitled *An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*) in which Malinowski outlines the "subject, method and scope of his enquiry," and more broadly, of Anthropology as a discipline with scientific method. Those lines launch the third section of the book's long introduction, which the author breaks down into "starting field work," "some perplexing difficulties," and "three conditions of success." To the postcolonial reader, it does make for a perplexing read. Many subsequent scholars affiliated with Anthropology, more specifically the methodology/art of ethnography, have found those lines both troubling and rewarding as a starting point for disciplinary critique. No less than three of the authors represented in the more recent landmark text on ethnographic practice, *Writing Cultures*, have quoted or referred to these same lines. What George Marcus discusses in cinematic terms (the *mise-en-scène* of encounter), James Clifford frames in narrative terms (posing Argonauts as the "saving fiction" to Malinowski's "unsettled Diary" from the same period and both against Conrad's work), and Mary

⁶ Victor W. Turner, *The Anthropology of Performance* (New York: PAJ Publications, 1988); Richard Schechner, *Performance Theory* (London and New York: Routledge, 2003 [1988]).

⁷ Bronislaw Malinowski, *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea* (Prospect Heights, Illinois: Waveland Press, 1984 [1922]); *A Diary in the Strict Sense of the Term* (Stanford, CA: Stanford University Press, 1967).

⁸ Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea, 4.

Louise Pratt discusses through the literary evocation of the castaway in relation to Malinowski's own state of war-time exile in the Trobriand Islands.⁹

While Malinowski is not credited with the beginnings of (small a) anthropology that honour belongs to the ranks of missionaries, settlers, and colonial officials who ventured forth before him—he is generally credited with asserting a greater professionalisation of the field (capital A Anthropology), of "killing" previous amateur accounts with science through the application of method. 10 Section VII of Malinowski's introduction to Argonauts deals with the method that has been one of his lasting legacies, that of participant-observation. Mostly, what he and others since mean by this is that the *work* of fieldwork is to observe (and note) what the participants of a particular culture are doing or to find out what they think they are doing. However, what is now generally acknowledged is that the terms "participant" and "observer" can not be isolated from each other. Both become implicated and act differently in the other's presence. Very few human cultures that are the subject of contemporary anthropological study are so marked off as to allow for boundaries between inside participants and outside observers to be clear. Furthermore, at Broome, as I foreshadow above, the act of observing will be a form of participation and also of performance. The "culture," in anthropological terms, will be one constructed anew by the visiting course participants, myself included, as well as any more-or-less resident human and other-than-human animals. And as James Clifford points out by reproducing and discussing the photograph of Stephen Tyler being observed in the act of writing by an informant in India, participants are prone to look back. ¹¹ If those slippages between roles aren't enough, there's Malinowski himself advocating another form of tricky co-

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⁹ James Clifford and George E. Marcus, eds., *Writing Culture: The Poetics and Politics of Ethnography* (Berkeley: University of California Press, 1986); James Clifford, *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge, MA: Harvard University Press, 1988), 99; George E. Marcus, "Contemporary Fieldwork Aesthetics in Art and Anthropology: Experiments in Collaboration and Intervention," *Visual Anthropology* 23, no. 4 (2010): 263; Mary Louise Pratt, "Fieldwork in Common Places," in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986), 37.

¹⁰ Malinowski's phrase "killed by Science" in context, is complex. It's simultaneously a critique of previous habits on the part of self-serving bureaucrats and theocrats to infantilise the "natives" while also an assertion of himself in a properly scientific role as principled investigator. These tensions and others are nicely explored in Pratt's "Fieldwork in Common Places."

¹¹ Frontispiece, Clifford and Marcus, *Writing Culture: The Poetics and Politics of Ethnography*; James Clifford, "Introduction: Partial Truths" in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986), 1.

mingling *as* method: "[a]gain, in this type of work, it is good for the Ethnographer sometimes to put aside camera, note book and pencil, and to join in himself [*sic*] in what is going on." Will it be possible for me to step in and out of fieldwork at the Broome Bird Observatory or to be clearly moving between acts of observing, participating, and performing?

Rather than anthropologists rejecting participant-observation for its inherent murkiness just sketched, the empirical method of fieldwork has instead remained remarkably persistent. Most recently a veritable call to arms has gone up: "[i]t is time for anthropology to reclaim the empirical."13 Both Danilyn Rutherford working in West Papua and Michael Taussig in Central America emphasise in their recent chapters for *Writing Culture* and the Life of Anthropology that the kind of ethical dilemmas of writing in and of the field (a writing that always creates partial views) can nonetheless be answered from an ethical grounding in responsibilities and obligations. 14 Taussig's question, "what of the responsibility to oneself as much as one's hosts to put something of those impressions out into the world, together with the responsibility to get it right?"15 is echoed by Rutherford's affirmation of "an empiricism that is ethical because its methods create obligations, obligations that compel those who seek knowledge to put themselves on the line by making truth claims that they know will intervene within the settings and among the people they describe."16 Which is not to say that either author is claiming or advocating for a return to a Malinowskian authority position, one in which the natives will be spoken for (again). History (let alone postcolonialism) would make such an attempt risible. No, as Rutherford asserts in paraphrasing Clifford's 1986 introduction, "[e]ven though we are aware of the partiality of our truths, we still must act."17 The doing of the doing, is the way out of nihilism. "The

¹² Malinowski, Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea, 21.

¹³ Danilyn Rutherford, "Kinky Empiricism," in *Writing Culture and the Life of Anthropology*, ed. Orin Starn (Durham: Duke University Press, 2015), 105.

¹⁴ Orin Starn, ed. *Writing Culture and the Life of Anthropology* (Durham: Duke University Press, 2015). Some of the essays in Starn's anthology were revised essays from the *Writing Culture at 25* conference at Duke University in 2011.

¹⁵ Michael Taussig, "Excelente Zona Social," in *Writing Culture and the Life of Anthropology*, ed. Orin Starn (Durham: Duke University Press, 2015), 150.

 $^{^{\}rm 16}$ Danilyn Rutherford, "Kinky Empiricism," ibid., 105.

¹⁷ Ibid., 111.

empiricism that characterizes anthropology at its best is both sceptical and committed."18

All of us who will be waving the waders goodbye from the shores of Roebuck Bay in April 2012 will be observing as a means of participating in a culture of birdwatching in the way that concert-goers at a musical festival or fanatics at a football game or flag-wavers at an ANZAC parade share in their respective cultures. In addition to this kind of observation as participation, I want to take up that more complex role of participant-observer laid down by Malinowski and followed, with healthy doses of self- and institutional-criticality, by many others from within and without the discipline of Anthropology since.

Returning to the Department of Theatre and Performance Studies at the University of Sydney: in the short amount of time I have available before boarding that flight to Broome, I opt to perform the role of trainee performance-ethnographer by doing the preparatory reading and then sitting in on an undergraduate class called "What is it that Ethnographers do?"—part of the third-year Rehearsal Studies unit.19

Our reading includes the 1973 "classic," "Thick Description" by Clifford Geertz; early chapters from the practical guide, Writing Ethnographic Fieldnotes by Robert Emerson et al.; and Gay McAuley's "Not Magic but Work: Rehearsal and the Production of Meaning" in which Geertz provides the template for a thick description of a theatrical rehearsal process.²⁰ With these three texts we students are carried in seemingly linear fashion from theory to how-to, to specific application in order that we might venture out ourselves with some of the right tools at hand. That carriageway from ethnography in the broad cultural context to

¹⁸ Ibid., 112.

¹⁹ I've been an Associate Artist with the Department of Theatre and Performance Studies at the University's main campus in Camperdown since 2002 where I'm supported in various practical ways to produce my own work and, from time to time, offer my practice as the subject of study by Honours and Postgraduate students. The Department's 13-week Unit PRFM3961 in Rehearsal Studies is preparatory to the five-day intensive rehearsal observation for PRFM3962 Inside Rehearsal.

²⁰ Clifford Geertz, "Thick Description: Toward an Interpretive Theory of Culture," in *The* Interpretation of Cultures: Selected Essays (New York: Basic Books, 1973); Robert M. Emerson, Rachel I. Fretz, and Linda L. Shaw, Writing Ethnographic Fieldnotes (Chicago: The University of Chicago Press, 2011); Gay McAuley, "Not Magic but Work: Rehearsal and the Production of Meaning," Theatre Research International 33, no. 03 (2008).

its application in the specific cultural setting of the rehearsal process is also reflective of one of the Department's ambitions: to link both ends of the performance spectrum by placing them on a continuum. As Associate Professor Ian Maxwell puts it, in drawing from Anthropology as one of the four pillars for teaching Performance Studies, the Department seeks to develop a "'broad spectrum' approach, both with respect to intercultural difference, and to broaden the ambit of performance studies along a continuum from (marked) aesthetic practices (what we call 'Big P Performance') to everyday, unmarked ones ('small p performance')."²¹ What Maxwell is pairing as marked and unmarked, Performance and performance, Victor Turner earlier named cultural and social performances;²² terms that, while important at the time, now only create confusion since cultural performances (aesthetic and stage dramas) are always social and the social can no longer be thought of as a separate category to the cultural.

As someone usually engaged solely in the practice of making big *P* Performances, it is both reassuring and challenging to know that I will be acting on a continuum that includes small *p* performances of the unmarked kind, that is, the kind I'm expecting to participate in on the Wave the Waders Goodbye course. I am therefore happy to pack my kit for Broome with some ethnographic tools if it will help me understand what that continuum from Performance to performance really looks like.

Luggage

From Geertz's "Thick Description," I take the following:

Firstly, I pack an image of culture that will help me contextualise all that I am likely to see (the observation side of the coin) and experience (the participation side of the same coin). Aligning himself with Max Weber, Geertz believes "that man is an animal suspended in webs of significance he himself has spun, [takes] culture to be

²¹ Ian Maxwell, "Parallel Evolution: Performance Studies at the University of Sydney," *TDR/The Drama Review* 50, no. 1 (2006): 38. Here Maxwell cites the "four pillars" for teaching the discipline at the University of Sydney as "historiography, anthropology, embodiment and analysis": 37-38.
²² Turner, *The Anthropology of Performance*, 81.

those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning."²³ For a social science dedicated to the study of "man," web does seem like a useful metaphor. However, at the Broome Bird Observatory, I know that what has already added complexity to the web, is that "man" will not be the only animal in the scene: will the presence of the birds be like flies, caught in our web of significance or, as I've foreshadowed by ascribing to the birds an *a priori* directorial role for course participants, will the situation perhaps be reversed; will the birds' culture be like a tree's branches that hold the web in place, indeed, make the web possible to exist at all?²⁴

Secondly, whatever it is that I will be faced with, I will, like the Geertzian ethnographer, "contrive somehow first to grasp and then to render." Those verbs—contrive, grasp, render—are very resonant for visual artists too. Contrive: fashion a situation; devise, invent, or conjure the conditions for something. Grasp: in the figurative sense—to reach toward with the hands and arms, with avidity, or, as the good *OED* reminds us, "to grasp the nettle, to attack a difficulty boldly." Render: translate, express, or represent; turn something into something else. To render, for Geertz and for most ethnographers, is to write, or, as he later clarifies, to "inscribe." Whatever form or forms my inscriptions will eventually take, at the beginning, my first conscious rendering will also be in writing.

Thirdly, and this is by no means an exhaustive plumbing of the Geertzian depths (or thicknesses), I will want to become acquainted "with extremely small matters" at the level of "local truths." As I write this more than forty years on from Geertz's essay, "truth" still needs its quotation marks, even though James Clifford's adjective, "partial," did much to lower our postmodern hackles. Writing yet more recently, the authors of *Writing Ethnographic Fieldnotes* prefer "locally

²³ Geertz, *The Interpretation of Cultures: Selected Essays*, 5.

²⁴ The web metaphor is also used by the social anthropologist Tim Ingold, not as an extension of Geertz's view of culture, though it can be seen as that, but as an argument with Actor-Network Theory. Against ANT's *network*, Ingold posits *meshwork*. Tim Ingold, *Being Alive: Essays on Movement, Knowledge and Description* (New York: Routledge, 2011), 89-94.

²⁵ Geertz, The Interpretation of Cultures: Selected Essays, 10.

²⁶ "grasp, v." sense 3, *Oxford English Dictionary Online*, (Oxford University Press, 2015), http://www.oed.com.ezproxy1.library.usyd.edu.au/.

²⁷ The Interpretation of Cultures: Selected Essays, 19.

informed."²⁸ Looping back to the empirical impulse, it is from being immersed in the local conditions and simultaneously being aware of that immersion that we are to understand Geertz's definition of "truth." "Sceptical and committed" is how Rutherford characterised it above. Neither an ethnographer nor even a fully trained intern, I am nonetheless able to recognise the processes of participant-observation—of participating and observing and now, also of writing—as roles worth performing (and perhaps also Performing). I am ready to commit to local partial truths.

Feeling committed to the task of performing an act of participant-observation, I also take seriously the advice given by Emerson et al. for writing fieldnotes. I treat their "four implications" for inscribing participatory experience as a set of instructions for experimental performance practice in the field.²⁹

Firstly, that what I will be observing about others will be inflected by the conditions under which I will be observing them and this could not and should not be ignored in my accounts. One of these conditions will be quickly made obvious to the other course participants. I've revealed to the BBO facilitators that part of my reason for attending the course is to undertake fieldwork for my creative practice PhD research and that I'd like to introduce my research area and reasons for being on the course to other participants. By such disclosure, I'll possibly be perceived by others as performing differently from them, not only participating in the ways they will be as bird-observers, but additionally, or at least sometime, as human-observer. Potentially, they will also perceive themselves as needing to perform differently in my presence. This might be met with hostility, curiosity, goodwill, avoidance, or even acting. I am already beginning to feel the heat of the anthropological enterprise and I haven't even reached Broome yet.

Secondly, I should do my best to find out what the experiences and activities of those around me mean to them. This is called "The Pursuit of Indigenous Meanings," an instruction that is particularly freighted given that I will be going

²⁸ Ibid., 21; Clifford, "Introduction: Partial Truths"; Emerson, Fretz, and Shaw, *Writing Ethnographic Fieldnotes*, 14.

²⁹ Writing Ethnographic Fieldnotes, 15-18.

onto Yawuru country.³⁰ Even without the complexities of what "Indigenous" means in the Australian context, in the discipline-specific context of ethnography, I know there will be various interpretations of indigenous in play at the Broome Bird Observatory, human and other-than-human.

Thirdly, I should document the things that are occurring around me and to me as closely as possible to the time of the occurrence/s. On a temporal scale from simultaneous to delayed, this can be done through headnotes (that is, writing in the head, something like using the brain as a textual camera); jottings on any available scraps of paper; and longer narrative accounts—but all these need to be done within the day of the occurrences. This particular part of the script chimes naturally with my own practice of working with durational constraints and with other performance artists working outside the theatre-time matrix.³¹

Fourthly, as a corollary to Geertz's interest in "very small matters," I should render my observations in fine detail.

So far this chapter has been about anticipation and preparation. I have been preparing myself and by extension you, the reader-audience, to enter a "stage"—Wave the Waders Goodbye at the Broome Bird Observatory—occupied by other humans already identified by me as playing the parts of participant-observers too; all of us anticipating an appearance by the birds (prefigured by me as directors). My own specific preparedness is oriented towards a writerly approach in which I will be required to take account of interactions that come within my own everpartial and self-implicating field of view. As if to reinforce this role and its attendant perceptual limitations, I pack my new Nikon 8 x 42 binoculars, noting how heavy they are hanging from my neck.

What follows is the result of a "writerly performance" of my first day at Broome in which my attunement to the task of writing ethnographically shapes the day in written terms. This writerly performance combines three modalities: firstly, via

³⁰ Ibid., 16. See footnote 33 below for an example of how an understanding of Indigenous meaning is both complex and opaque to me as "Visitor".

³¹ See for example Barbara Campbell, *1001 nights cast*, (2005-2008), a durational project in which a story that had been written for me during the day in response to a writing prompt from the morning's newspaper stories on the Middle East was webcast by me live at sunset through a webstream portal at 1001.net.au. The project consisted of 1001 consecutive nights of storytelling.

headnotes, "grasping" the day *as it unfolds*; secondly as an *ex post facto* "rendering" carried out within 24 hours of the events' unfoldings, related in chronological sequence; and thirdly, as sometimes lengthy footnotes or side narratives that take retrospective account of some of the gaps in my ever-partial views (Figs. 14 and 15).



Figure 14. View from inside one of the bird hides at Jerrabomberra wetlands, Canberra. On this occasion ACT artist Steven Holland performs acts of waiting and watching. The dark interiors and small viewing apertures are designed so as not to disturb the birds. Multiple apertures at different heights suggest greater available options for human viewing while the architecture simultaneously prescribes what the performance of that viewing can look like. Photo: Barbara Campbell.



Figure 15. Barbara Campbell, *close, close, 2014*. Single-channel responsive video projection, Kinect sensor, computer programming by John Tonkin. Photo: Marah Weston. Even though human spectators control the position of the aperture in this installation, they only ever have limited view of the entire shorebird-environment. There is more unseen than seen.

Partial Views

Tuesday, 3 April 2012

Carpark, Broome Visitor Centre

It's nearly 12.30 pm. As arranged via email, someone from the Broome Bird Observatory—which is actually 25 kilometres from Broome though much closer "as the crow flies"—will collect me from out the front of the Broome Visitor Centre. I've been in town since this morning but there was no place to leave my luggage at the Centre. "We don't have insurance for that," I was told by a male employee, so I'd left it at my friend's gallery in Short Street. I'm now wheeling my bag—the kind you might take to Europe rather than the Kimberley—across the car park and up the ramp at the back of the Visitor Centre. It's a distance of perhaps 100 metres but it feels much further under the tropical sun. As I'm rumbling my way across the car

park—devoid of both people and cars—I look towards the oval on my left.³² It's lushly green in the middle thanks to the wet season just finished, but no one is on the oval itself. A dozen or so Indigenous men and women are spread around the perimeter, finding shade under a few sparsely planted trees. There is not much movement over there and no one seems to take much notice of my ridiculous progress, my bag scoring grooves through the loose white scree. It doesn't feel to me like we're in the same scene. I seem to be in a Beckett play. They? I don't know.³³

Coming down the ramp on the other side of the Visitor Centre I clock the McDonalds on the other side of busy Hamersley Street, before scanning the car park for my lift. I'm a little bit early but there, along one side of a legitimate four-wheel drive, is the logo of the Broome Bird Observatory—two birds flying over a stylised turquoise bay within a circle of black lettering—partly obscured along the bottom edge by deep red oxide dirt. Shane Periera,³⁴ one of the outgoing wardens of the Observatory, is walking towards me. Like the car, he looks the part: lean, deeply tanned, sunglasses, khaki shorts and long-sleeved shirt complete with machine-embroidered BBO logo. There is the briefest introduction before he loads

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 $^{^{32}}$ Male Oval Reserve on the maps, the "Male" part referring to a Broome forebear not a gender ascription.

³³ Retrospectively, our knowledge of this particular assemblage at this place and moment can be minimally fleshed out from a story in *The Australian* reporting how the Colin Barnett (Liberal) State Government's intention to close remote communities in the Kimberley would further exacerbate the problem of Indigenous homelessness in Broome. See Paige Taylor, "Bishop Fears 'Catastrophic' Result of Colin Barnett's Remote Closures," The Australian, 18 November 2014. This news item had been generated by the Catholic Church's Return to Country special project for which it had received funding from Lotterywest to research and fund the relocation of temporary town-dwelling Aborigines back to their communities remote from service towns such as Broome. If ever there was a thick description in need of writing it is this one with its entanglement of State, Church, Law, gambling, journalism, and Indigenous dispossession. And yet what's offered in the brief article, by way of stark second-hand relay, is the situation of Kathleen Yugumbari from Balgo and her partner from Yiyili (both communities near Halls Creek in the East Kimberley) interviewed at the Male Oval by The Australian's reporter: "Ms Yugumbari said she first came to Broome from her remote community of Balgo in 2002 to serve a short jail sentence for unpaid fines. Initially, it was hard to get home and she started sleeping on the oval about four years ago. 'I got stuck here,' she said." We can't assume, given Australia's more than 200-year history of Indigenous removals from Country, that Balgo is home Country for Ms Yugumbari or that Yiyili is for her partner. In contrast to my own clear status as visitor with booked accommodation and a return Qantas ticket to Sydney, Kathleen Yugumbari's position as internal exile sits on a timeline that is likely multi-generational. Contrast these partial observations with the consultative, Yawuru-authored, "Proposed Yawuru Nagulagun/Roebuck Bay Marine Park Indicative Joint Management Plan," (Kensington WA: Western Australia Department of Parks and Wildlife, 2015).

³⁴ Some of the names in this account have been changed in keeping with differing requests for anonymity.

my bag onto the back row of seats of the 4WD and I take the last spare seat of the middle row next to another woman about my age. More self-introductions. It's Laura I sit next to and in the front passenger seat next to Shane is Gerda, another woman about my age but with a European accent. I don't ask too many questions at this stage.

En route

We head out of town along the Broome Highway. A few kilometres later another sealed road joins the highway from the north. It leads to Cape Leveque and the Dampier Peninsular. But we turn to the south onto Crab Creek Road, onto the same red oxide soil that coats the bottom half of the car we're in.³⁵ Shane pauses at the junction of bitumen and dirt to put the car into four-wheel drive; he's closely studied doing this by Gerda.

Shane doesn't say much during the trip. Laura says the most. She's a nurse who moved from Perth a couple of years ago to take up a position at Boab Health Services in Broome. She asks about my interest in doing the course and I tell her about my PhD project. She confesses an attraction to raptors. I say "confesses" because there is an aspect of guilt in her voice, as though she is condoning murder. She's been to Langkawi Island in Malaysia to see the Brahminy Kites. She wants to travel to the States to see other birds. She says she's an absolute beginner when it comes to most non-raptor species.

As we go along, we notice how the foliage on both sides of the road looks like it's been dipped in thick rust-proof paint indicating how high the seasonal flood levels have recently come. Laura asks Shane about crocodiles. Shane says that they're rare but they have been sighted. He adds, "keep a look out for Stimsons' pythons, browns, and whip snakes" but clarifies, after Laura asks whether the pythons are dangerous, that he means we might be lucky (not unlucky) to see a snake. With these few words, we have entered a way of thinking where any sighting of wildlife is a privilege to be relished not a threat to be feared.

³⁵ I learn later that the distinctive soil and the life it supports are known locally as pindan.

At one point Shane pulls off the road so we can look at the beach and bay and points out that we'll be coming back here in the coming days to watch the shorebirds.

Broome Bird Observatory, Roebuck Bay, Western Australia

About 35 minutes after leaving Broome, we pull up at the assortment of corrugated iron buildings that is the Broome Bird Observatory. We're greeted by Kathrina Southwell (Kath) who is soon to take over from Shane as warden. She shows us to our rooms within the dormitory block, first walking us along the narrow decking past the office at one end, then the library-cum-TV room where we can hear a documentary video playing. Kath explains to Laura and me that two of our fellow course participants, who had arrived the previous afternoon, are in there watching DVDs. We don't disturb them. My room abuts the library and Laura's is next along. Kath pushes my door open and I quickly note the basic furnishings: a single bed made up with bottom sheet and pillow, top sheet, and cotton blanket lying folded on top. Without irony, Kath checks that there is a spare blanket in the cupboard, which I "probably won't need." There is a built-in bookshelf forming the bedhead and a built-in wardrobe, both in chipped, dark woodgrained melamine. At the base of the bed are a small Laminex-topped desk, brown tubular metal chair, and yellow desk lamp screwed to the wall above the desk. There is no lamp above the bed though evidence that there has been one still remains on the wall. Beside the door, above the desk, is a smallish sliding window, fitted with fly screen on the outside and a blue cotton curtain on tabs on the inside. Square creamy-orange ceramic tiles cover the floor though it's hard to tell if the orange is actually due to pindan staining or was chosen to camouflage that eventuality. As if to compensate for the general drabness, the walls are painted cerulean blue. Screwed directly to the wall opposite the bed is a solitary, light-faded, 10 x 8-inch, framed photographic portrait. It is of a single wader bird, striding on lightly grassed earth. I don't recognise the species but feel confident that I will see this bird, or at least one like it, "in the flesh" in the coming days (Fig. 16). Like a crucifix in a convent cell, it reminds us of why we're here. Kath is mainly concerned to point out the air conditioning unit and immediately turns it on at the wall. It plugs into a single power socket so that the floor fan standing nearby is now made redundant. It's one or the other. We shut the door, leaving the air conditioner to do its work.



Figure 16. Interior detail of accommodation unit, Broome Bird Observatory, 2012. Air-conditioning unit plugged in, fan standing idle, framed photographic print (uncredited) of a shorebird in the environment. Photo: Barbara Campbell.

Kath continues the tour, guiding us along a curving path of small white pebbles (similar to those in the Broome car parks) to the toilet and shower blocks, male and female, and reminds us to bring our headlamps at night. We're also instructed to close the doors after us and to always lower the toilet seats to prevent the abundant green tree frogs from leaping in and blocking the plumbing. She also points to the ever-ready can of Mortein to keep the mozzies at bay inside the bathroom.

Along another pebble-lined and inadequately shaded path we head to the Shade House: a very basic, unlined, corrugated iron and shade-cloth structure with exposed metal and wood roof frame fitted with fluoro lights which, I notice later, cast a distinctive yellow glow at night. It is neither insulated nor air-conditioned in here but it does have ceiling and wall-mounted fans. Huddled together above one of the ceiling fans is a posse of green frogs who, we're told, will piss on any unsuspecting visitor seated at the table below. Mosquitoes are also abundant. We're told we can help ourselves to any amount of insect repellent. The room has a

definite bush-camp feel. About a third of the room is kitchen area. The four fridges of various age and wear are dotted around the room, their motors working hard. Other food supplies are stored in large plastic bins around the perimeter. Two long tables with plastic chairs running lengthwise occupy the other two thirds of the space. Set up on a tripod is a telescope pointing through the gauzed opening towards the bird baths, trees and bush a few metres away. Kath points out the large blue plastic barrel of water prominently placed on a table near the kitchen area. Not running on electricity, I guess it must be well insulated, as the water it delivers is a few degrees cooler than room temperature. It will become our well. We are encouraged to drink water before, during, and after trips out and my new Kathmandu squeezie water bottle becomes my constant companion. We're also shown where the tea and coffee supplies are and how to light the gas rings of the industrial-strength stove.

Next we're taken to the "Mud Lab," another corrugated iron building although this one is lined and has air conditioning. Lining the back wall are shelves of small tubes containing some of the so-called "benthic fauna" specimens. One side of the room is fitted with shelves and desks. Down the middle, arranged in classroom format are rows of standard issue Laminex folding tables and plastic chairs. A projection screen and data projector is already set up. Kath tells us that, because the room is air conditioned, our next activity—a slide show introduction to the shorebirds of Roebuck Bay—will be in this room at 2 pm. Until then, we're left to settle in.

At 2 pm we're all gathered back in the Mud Lab and the introductions are completed with Tricia (from Melbourne), about the same age as Laura and me, and Gordon (from Sydney) who is probably in his 70s. Gerda and her husband Dave, who has an English accent, are also in the room although we find out later they aren't on the course.

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³⁶ The Mud Lab is actually a serious laboratory. Part of the scientific work done at the BBO is the sampling and analysis of benthic fauna, that is, the myriad variety of tiny animals that live in the vast mud flats of Roebuck Bay and serve as the major food source for the migratory birds. The variety and abundance of life in the mud is directly related to the variety and abundance of the shorebirds.

Kath begins her slide presentation with Occupational Health and Safety matters and a map of the BBO, noting the three trails and the assembly area near the front office. She reminds us to take our torches with us at night and to watch for snakes (I'm not sure now if the snakes have reverted to the dangerous category).

Kath remarks that her Byron Bay bird buddies have put the slide show together and that she'll skip over any slides of birds that we won't be seeing in Broome. Kath first goes over the general principals for bird identification: overall size, length, and shape of bill; and length and colour of legs are the main features to focus on. She doesn't say anything about plumage. There are 36 species of migratory shorebirds and 18 species of resident shorebirds in the area (see Appendix 1). Both young and very old birds will overwinter in Australia rather than migrate. She then takes us through slides of individual species, represented through schematic drawings and field photographs, pointing out key features for identification:

Eastern Curlew (the largest)

Whimbrel

Little Curlew (not so many on the coast)

Bar-tailed Godwit (up-turned beak)

Black-tailed Godwit (straight black beak, def. black tail in flight)

Common greenshank

Kath breaks from bird identification to tell us about the 20–29,000 kms of round-trip migration and that some birds will travel 8,000 kms non-stop in 3–9 days. She returns us to the individual species:

Marsh Sandpiper

Grey-tailed Tattler

Terek Sandpiper (bright yellow legs)

Common Sandpiper (wags tail, bobs head; there are lots here)

Ruddy Turnstone (bright orange legs, wedge-shaped bills)

Great Knot

Red Knot (orange/red breast)

Sharp-tailed Sandpiper (reddish cap)

Curlew Sandpiper

Pacific Golden Plover (not many here)

Grey Plover (large eye)

Another break between bird species while we're shown a poster of flagged birds and Kath points out that the different coloured leg flags indicate where the birds were flagged and that they can be visually tracked along the flyway this way. She mentions that a young woman, Ginny, is currently at the BBO doing a research project that involves reading the flags on birds in the field. More birds:

Broad-billed Sandpiper (broad bill at top)

Sanderling (more on the beaches than the mudflats)

Red-necked Stint (the smallest shorebird)

Double-banded Plover

Lesser Sand Plover (very small bill)

Greater Sand Plover (larger bill)

Then to the resident shorebirds:

Red-capped Plover (red cap)

Black-fronted Dotterel (orange beak, orange-ringed eyes)

Masked Lapwing

Beach Stone-curlew (a large bird)

Black-winged Stilt (thin black bill)

Kath then adds some information about the range of habitats important to the shorebirds: sheltered bays, ocean beaches, rivers, lakes, dams, and sewerage ponds. There are 119 sites of international importance in Australia. She makes a point about conservation, that there are 19 species globally threatened. As an example of one threat, she describes how some birds like to roost in shaded spots on the beach: the treads of vehicles will create small divots in the sand that, to a bird, become shade spots; another vehicle following these tracks will crush any small birds roosting there.

Kath ends with a slide that outlines some dot-point reasons why we should protect the shorebirds:

- aesthetics
- seed dispersal
- insect control
- indicators of environmental change
- economics—e.g., nature-based tourism
- contribute to cultural heritage through art and stories
- contribute to and promote well-being in humans

These reasons, the slide says, are cited in the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC). Kath doesn't elaborate.

At the end of the slide show Kath looks at me and suggests that this would be a good time for me to tell everyone about why I'm at the course and my study. I haven't prepared anything formal to say but having now described the project verbally and in written form to different groups of people, it comes quite fluidly. It's hard to judge how the course participants take my spiel. Tricia is the most vocal respondent and dubs my study "interesting."

Kath informs us that our next activity—"migration watch" on the beach—will start at 4 pm and that our rendezvous point is in front of the office.

At 4 pm we duly gather and are given folding stools and telescopes on tripods to carry, along with whatever else we've already packed. My daypack carries what I assume to be the essentials—water bottle, binoculars, notebook and pen, camera, hat, roll-on insect repellent, sunscreen, and mini Shorebirds identification booklet that I'd been sent by the AWSG. All up, it's quite a heavy load. We set out single file along a path that runs past the end wall of the dormitory block towards the beach. This path is mainly pindan, with small mounds of fresh red here and there from the activities of some unseen burrowing creature (Fig. 15).³⁷ About 20 metres along, the walking path crosses over the red dirt road that continues east past the BBO towards One Arm Point.

³⁷ I'd mentioned these dirt mounds in an email to one of my bird-watching informants who'd spent

one wet season as temporary warden at the BBO. He found that the creatures were nocturnal and through his persistence discovered they were scorpions "built like the proverbial shithouse." Roger Standen, pers. comm. to author, 30 May 2015.



Figure 17. A mound in the pindan (the oxide-rich earth of the Kimberley), created by some unseen burrowing creature at the Broome Bird Observatory. Photo: Roger Standen.

We pick up the path on the other side and can now see Roebuck Bay before us through the scrubby trees. It's a bit of a drop down to the beach from the path, especially with a load. We take it as carefully as we can and start spreading out towards the west, forming a line of amateurs and experts, the latter helping the former to set up our tripods and scopes. But Tricia, who is bringing up the rear, loses her footing at the bank and collapses onto the beach. Those nearest to her go to her aid and see if she's suffered an injury. She says she's not in much pain, with no apparent breakages, and insists on staying, sitting on one of the folding stools with scope set up before her for comfortable viewing. Dave and Gerda keep close to her for the rest of the afternoon. Further along is Gordon, then me (both of us seated); the two assistant wardens, Simon and Teresa (who remain standing throughout); then Laura, also seated; and an hour or so later Ginny, the young research student, joins us. We are left to acclimatise to the scope and scan the mud flat in front of us, with the tide slowly coming in.³⁸ On this first evening, the

³⁸ According to the *Uniquely Broome* traveller's guide, sunset time that evening was 17.51 and the next high tide was 7.09 metres at 20.39. Heading towards the full moon on the coming Saturday night, the tides would get later and larger with more and more mud flat being exposed during the

intricacies of tide times and amplitudes don't register. We are simply looking for birds and trying to mentally match the moving objects within the focus of our scopes to the still, schematic drawings of the slides projected a couple of hours ago in the Mud Lab.

Gordon is the course participant most willing to vocalise an identification, though he never comes across as entirely confident (perhaps it is false modesty). For the most part, his and my voices suggest we are guessing, although I'm fairly sure about the Ruddy turnstones from my counting trips around Botany Bay. The difference between there then and here now is that many, if not most, of the birds have come into breeding plumage and so the colours and patterning can't be relied on as primary identification markers. I guess this is why Kath had not dwelt on the birds' plumage in her slide talk. The birds are also much fatter than they would be in early or mid-summer.³⁹ With our scopes and binoculars we can also see a lot of yellow leg flags (the yellow flags indicating they were flagged in Roebuck Bay perhaps quite recently).

Meanwhile, the standing Simon and Teresa have been scanning the skies for migrating flocks. They do this with their binoculars as they allow for greater mobility than would the scopes. Only when a flock has been securely sighted, will they attempt to find it in the scope. Over the course of the watch, Simon is always the first to spot the migrating flocks forming pencil-thin lines close to the southern horizon heading slowly in our general direction. Significant time will pass before anyone else can see what he is seeing in either binoculars or scope and certainly not with the naked eye. More miraculous, it seems to all of us, is that he can identify the species when they are no more than black specks in the sky. 40 It is a

^{4–6} pm period set aside for nightly migration watch. This interaction of tides and birds is one factor that makes each migration watch different in character from previous and subsequent nights.

39 The birds put most of their pre-migration energy into accumulating body fat reserves that they use for fuel on the long journey ahead towards staging sites around the Yellow Sea, East Asia.

40 I often speculated during and since the course, about this ability as Simon was either unable or too shy to satisfactorily articulate to others how he did it. I surmised that it was a complex and completely naturalised, I would suggest unconscious, constellation of stimuli—aural, visual, kinetic, contextual—and as much about positive as negative information (this, but not that; here but not there; now and not before or later), all rapidly processed to come up with a fast, confident, positive, identification.

virtuosic, though modestly executed performance that is universally appreciated by everyone, even his colleagues.

As the afternoon wears on with changing light and incoming tide, both exerting subtle pressure on the birds, more and more flocks start to form and fly over. As to the sighting and tracking of these flocks, we each have our own timing, according to our individual perceptual ability and facility with our equipment. Because we are a group, our vocalised reactions have the effect of a choral fugue, starting invariably with Simon and an almost casual observation like, "there's a flock of about 150 Bar-tailed Godwits near the horizon straight out in front," at which point we cease our slow and steady watch of birds on the mudflat and look to Simon to imitate the trajectory of his gaze, so that we too might see what he is seeing. As the flock appears anew for each one of us, some breath of affirmation is expelled, sometimes just a short "huh" or sometimes actual words "oh, there it is," "I see it," "oh, yeaheaheah," or just a laugh. Whatever the expression, the pitch of voice is higher when looking at the flocks in flight than the massings on the shore, as though there might be some correlation between height of voice and height of birds. Gordon is the most vocal in showing how much these sightings affect him with statements like "stirs the soul" and even, on this first afternoon, quoting Gray's Elegy: "[t]he Curlew tolls the knell of parting day".41 When we do find a flock, it isn't always possible to keep it within sight. The birds often foil any sense of a secure vision by suddenly changing direction, causing the sun to glance off their wings at a different angle, the resulting tone of reflected light merging with the light and tone of the sky so that they will literally vanish before our eyes and maroon us in silence.

Towards the end of our first afternoon on the beach, the group's attention again shifts from the birds to the humans as clearly Tricia's ankle has become very swollen and she can't walk. Laura, the nurse, becomes chief attendant while Shane

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⁴¹ Thomas Gray, "Elegy Written in a Country Churchyard," *Thomas Gray Archive*, 23 September 2013, accessed 28 July 2015, http://www.thomasgray.org/cgi-bin/display.cgi?text=elcc. The line is actually, "[t]he curfew tolls the knell of parting day" (referring to a curfew bell), though is frequently misquoted as Curlew (which also makes a sound at day's end). "The curfew was a bell, or the ringing of a bell, rung at eight o'clock in the evening for putting out fires (Fr. *couvre*, cover, and *feu*, fire), a custom introduced by William the Conqueror. The word continued to be applied to an evening bell long after the law for putting out fires ceased..." John Bradshaw, *The Poetical Works of Thomas Gray: English and Latin* (London: George Bell and Sons, 1903 [1st edition 1891]), 214-215.

goes to get the 4WD, drives it down onto the beach and transports Tricia back to camp. We all half-joke about this, remembering our earlier lesson in the Mud Lab about threats to beach-nesting birds from vehicles. Tricia spends the rest of the evening leg up, shoeless, with a constant rotation of ice packs but apparently still free from pain except when walking. She is determined to stay the course, carefully managing her injury with a walking stick. Sadly for her, it seems likely that some of our planned excursions will be too physically inaccessible for her to join.

Dinner is served in the shade house around 6.30 pm. The wardens and assistant wardens take charge of all catering and do so with both skill and enthusiasm. After dinner while we are all together, still digesting, Kath wants to know from everyone, staff and visitors, what has brought each of us to the BBO.

Gordon is first to speak. He'd been in the Navy and when he was in his early 20s he'd been sent on a naval course in Portsmouth. As part of the course, everyone was required to deliver a talk on a non-Navy subject. Gordon chose as his topic the migration feats of the Arctic Tern. He'd visited the South Sea Museum while he was in Portsmouth to do some research and the curator allowed him to take away a specimen of an Arctic Tern to help illustrate his talk. Although he was very nervous, especially having to present his talk in front of officers, he could see that everyone was entranced with the story of the Arctic Tern and he's been passionate about birds ever since. He calls himself an occasional birder who needs to get a "bird injection" every couple of years.

Laura hadn't had a prior interest in birds until coming to Broome and visiting the BBO to do some cannon netting and from that experience, she'd wanted to do this course. She reveals her "secret" passion for raptors, talking about seeing the Brahminy Kites in Malaysia. She says she'd spent a lot of today's migration watch following the trajectory of an eagle that was worrying the Red Knots.

Tricia, with elevated leg, gives a potted history of her life's course from university through an "accidental career" including on the ACTU executive, work for the Australian Conservation Foundation in the 1980s, on international aid programs, setting up the Global Sustainability Unit at RMIT, and working in the Forestry Industry in an ultimately futile attempt to change their practices. All of this has

meant a lot of travel including to Broome about six years ago just after the migration had finished. "I missed it!" She'd wanted to come back since then. She says she's no expert.

Gerda had migrated from Germany to England and met Dave 36 years ago. Birding is his life; he works for the Royal Society for the Protection of Birds (RSPB) and now she does too. "I don't have a choice, but actually I love it." They have a daughter who's lived in Australia since 2008. Every seven years they get four weeks sabbatical from RSPB to travel and pursue a conservation issue and so they chose to come to Australia to see their daughter and to volunteer at the BBO in exchange for accommodation.

Kath had previously worked in Ballina. The Sea Turtle was her specialty there but after eleven years of seeing the devastating effects of humans on marine creatures, it had started to affect her mental health. She came to the BBO in February 2012 to fill the position of Assistant Warden but then Shane and Deolinda had resigned as wardens shortly after she arrived and she quickly got promoted to warden.

Simon has worked at bird observatories in the UK. He just loves the lifestyle.

Teresa also likes the way of life. She'd been working for Birdlife in Spain. Then she worked for RSPB in Wales, studying Curlews. She wanted another change and chose the BBO.

Ginny is a Masters student at the University of Groningen. She's studying birds in Roebuck Bay and their distribution patterns along the beach by looking at individually flagged birds. She's working with Chris Hassell (whom we're told we'll meet later in the week).

Dave is responsible for two nature reserves in Cornwall. His work mainly involves dealing with "issues"; for example, a nearby heliport, dogs on the estuary, wind farms, and the nearby presence of the Navy who uses the reserve for flyovers.

Kath asks me if I wanted to add anything to what I'd already said in the afternoon. I simply state that it isn't the birds themselves that drew me here but the culture around the birds, represented by the people (the people in the room) who are passionate about birds.

As the last programmed part of the day, Kath explains what "birdlog" is all about. It's a simple process of recording the day's sightings around the BBO, whereby one of the wardens reads out a list of local birds (and other fauna) and anyone who's seen that bird during the day should yell out "yes" and where they saw it—for example, Obs (Observatory), Bay, Pindan, or Plain—and then Kath will record this on the laptop. She further explains that for every personal new sighting 50 cents should go into a BBO donation jar and two dollars for certain rare bird sightings, although this system will not be enforced on the first night. And so, she starts to read out the species list. I and the other newcomers are very quiet as we're still not entirely sure what we've seen. The experts—Simon and Dave—are the most vocal. It takes about 20 minutes to go through the list of about 200 bird species and 26 other animals.

We course participants have only been here for six or seven hours but by 8 pm most of us are ready to turn in and no one else is surprised. In any case we're expected for breakfast at 6.30 am the next day, ready for our first off-site bird outing.

By the end of day one even our basic movements have become choreographed and shaped by the extremes of our new environment: economising on even the shortest journeys along unsheltered paths; drinking, replenishing, and carrying water; regularly coating our bare skin with alternate layers of insect repellent and sunscreen that soon slide off with the sweat; taking on and off hats and sunglasses; closing doors and toilet lids; turning on and off dormitory air conditioners, and swapping over to the oscillating floor fan for a quieter kind of cool during the night.

In the middle of this first night I decide to forego my headlamp and let the moon guide my journey to the toilet block. From the bushes I hear the deepest thuds and am instantly worried that at any moment I might be crash-tackled by a large marsupial. I have to keep going and hope for the best. In future I'll be using the headlamp.

Afterthoughts

It's time to turn to those secondary elaborations that Michael Taussig calls "afterthoughts": to "engage with the gaps, questions, connections, conundrums, and the big ideas that lie latent and in turn generate more of the same."⁴²

In part, such gaps, questions, connections, and so on, are revealed by the paradoxical wholeness of the text, what I think of as the meta-performance of ethnographic writing. What you've just read is a story consciously rendered by me according to layered writerly conventions. As writer-performer, my first task is to engage the reader-audience. I've certainly taken on, to the best of my ability, the methodologies of fieldnote writing that Emerson et al. had suggested (see above 51-52), but as well as these, there are many other conventions fully naturalised for writers and readers of English. The most obvious is the English language itself, whose usage, as Benedict Anderson writes in 1983, has contributed so powerfully to the "imagined communities" of nation-states. 43 I may have heard Jugun or Julbayi Yawuru or any other language of the Kimberley spoken by that group on the Male Oval in Broome;⁴⁴ but their words have, for good or ill, been left outside this story written in one language only. Neither Gerda, nor Teresa, nor Ginny spoke in their respective native languages and so only the English parts of their linguistic identities have been incorporated into the body of the story. And then there are the birds, who are surely "saying something" too. Simon and Dave know something of what they're saying by their calls, feeding and flight behaviour. Ginny can read their leg flags and know something about their journey. But my knowledge of even this much is a long way from being developed. The birds' voices, despite my best intentions, are largely missing from this chronicle. (This particular question of interspecies communication will be examined more closely in the following chapter, "Interlocutors.") And so, the occlusion of all languages other than English

⁴² Taussig, "Excelente Zona Social," 150.

⁴³ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1983), 41-49.

⁴⁴ Pat Mamanyjun Torres, "*Nila.Ngany*—Possessing/Belonging to Knowledge: Indigenous Knowledge Systems in Yawuru Aboriginal Australia," in *Indigenous Peoples' Wisdom and Power: Affirming Our Knowledge through Narratives*, ed. Nomalungelo I. Goduka and Julian Kunnie (Aldershot: Ashgate, 2006), 21.

does a lot of the work in producing a narrative flow that stitches all the story's actants together.

There are also stylistic conventions in writing ethnographic accounts that speak to the discourse of ethnography itself. Kirsten Hastrup makes a strong case for writing ethnography from the position of the authorial "I" and in the present tense. By such methodology, each empirical now, she argues, remains always available to evolving discourse. The authorial "I" is not to be mistaken for the authoritative "I" as I think my account of day one reveals. The reader should have the sense, set up by the preparatory metaphor of the binoculars, that we move through time and space according to the ever-partial view of one visitor. Like looking through binoculars, certain details are brought into sharp focus at the expense of things happening on the periphery.

There is another sense in which questions of authorship and authority are revealed by the binoculared writer and for this we can turn to the internal features of the text itself. A repeating pattern of other animal presences dwelling in the landscape draws out and reinforces the poor adaptations of human visitors in the same setting. Seen and unseen, heard and unheard, each other-than-human species has found a niche within its environment that has only relatively recently included manmade features such as toilet blocks, ceiling fans, and forgotten footwear. One by one in the text, the others are named and humans are soon outnumbered. Crocodiles, three species of snake, wader birds of abundant kind mirrored by benthic specimens of similar variety, mosquitoes, tree frogs, scorpions, and marsupials: each reveals its authority in the landscape in contrast to the humans who perspire and burn, dehydrate, and need every kind of human and technical assistance and guidance to perform even the smallest action.

There is also an authorship of the land by all these creatures and yes, I do mean writing. "Ichnography" in the architectural context might mean the drawing of ground plans but Michel Serres has wrested it from the Greek *ichnos* (the mark of the step, the footprint) and claimed it for "the beasts that wander in all

⁴⁵ Kirsten Hastrup, "Writing Ethnography: State of the Art," in *Anthropology and Autobiography*, ed. Judith Okely and Helen Callaway (London: Routledge, 1992), 126-128.

directions."⁴⁶ Ichnography is a writing of the ground prior to human trampling. Roebuck Bay is full of this writing, this ichnography, and not just on the ground. Beneath the ground, worms, crustaceans, and scorpions constantly burrow and surface. Above the ground, frogs layer and slide, mosquitoes swarm, and snakes ascend from the hot earth to nestle in with water cisterns. The waders stitch all the layers together: probing below the surface for buried food, leaving long-toed marks on the sandy surface to be erased and rewritten in 12-hour tidal cycles and, when the time is right, taking to the air to write their migration formations overhead. Many a biologist would reject any of this as ichnography, even in Serres's sense, for it is not biophysical wandering "without knowing where or why" that the animals are doing.⁴⁷ However, what was revealed to me in my time at the Observatory and through my own partial inscription above is that a lot of species and individual animals have been writing an interspecies ichnography of that place over vast lengths of evolutionary time.

Following Serres's line of flight, I would want to call such a thickness of interspecies writing "the total picture of the possible," that is, the *prescription* of Broome's "ensemble of meanings" prior to my own (or any other) inscription of a single rendering. I think it's important to distinguish Serres's idea of prescription from that other writerly metaphor of the palimpsest. The birds and other creatures have not made a ground onto which we humans are now free to walk or write over. Rather, the interspecies ichnography of Roebuck Bay is being constantly written and rewritten. It is always immanent. From time to time a single human visitor might come along to draw her own lines in that place, will occasionally intersect with other lines being drawn there, and will depart. She will contribute to the ichnography of the BBO but only a small part.

Writing, we should remember, is just one possible means of inscription: every other participant on the Wave the Waders Goodbye course brought a camera with them, as was encouraged by the course facilitators. Who knows how many or what

⁴⁶ Serres, Rome: The Book of Foundations, 22.

⁴⁷ Ibid. It may not be known as yet to humans but the animals themselves have an adaptively sophisticated knowledge of their own movements.

⁴⁸ Ibid., 23. Serres uses the phrase "inscription of a single meaning" but he's talking about competing histories of Rome whereas I'm talking about one rendering of Broome in which no claim to a single meaning is being or could be made.

kinds of narratives have been fashioned from that form of fieldnote-taking. Just one of them features in the following chapter, "Interlocutors."

Chapter 3

Interlocutors

There you are.

You've got a rippa.

There you are, you won't get much better than that.

Wonderful.

Well there you are.

Well how about that,1

We are again assembled on the beach of Roebuck Bay. It's the third evening that we course participants have gathered in the lee of the pindan banks for the programmed activity of migration watch. On this occasion, although happy enough with the still images I'd taken the previous night, I've borrowed Gordon's boughtfor-birding camera; a smaller Lumix, lighter than my own but with the advantage of the zoom function operating in video mode. It means I am again Gordon's littoral neighbour, our bodies and equipment sitting side-by-side, only about a metre or two apart. Though physically close, the occasional words we speak are not *to* each other exactly. Our words travel in the same direction as our faces, out towards the sea or upward towards the sky, wherever, that is, the birds are. Thus, by our stances and fields of vision, we are already absorbed in the more-than-human world of our immediate environment.²

As on the previous evenings, Gordon is not shy in giving vocal response to his bird sightings and, sitting so close to me while I shoot video on this evening, his vocalisations become the unintended and, as it turns out, entirely felicitous sound track for my attempts at recording flocks of departing Godwits in migration formation. This is, after all, the main spectacle we've all come to watch and so, as Participant-observer and as Visitor, I feel implicitly obliged to record it.

¹ Transcript of Gordon Ramsay on audio track of video recorded at Roebuck Bay, Western Australia, 6 April 2012, 7.38 pm. See "Migrating Flock of Godwits, BBO" at https://vimeo.com/176546656.

² A more-than-human mode of enquiry is one that does not "presume socio-material change is an exclusively human achievement." Sarah Whatmore, "Materialist Returns: Practising Cultural Geography in and for a More-Than-Human World," *Cultural Geographies* 13, no. 4 (2006): 604.

The single "successful" video clip I shot that evening is only 33 seconds long "unedited." The "success" of the video clip can be measured against the simply stated intention hanging over from the end of the previous paragraph. What I managed to capture in that 33 seconds is indeed a flock of migrating birds in formation but it's much more than this and I'll soon dilate its significance. The source clip is only "unedited" in the standard film industry sense, in that no *internal* slicing and splicing have been done to the original footage. *Externally*, of course, it is entirely edited. It's a digital representation and translation of a minute portion of the time-space-event that constituted the wider phenomenology of that evening's migration watch.

While the previous chapter focused on the act of field writing as both the preparatory stage of performance and a form of performance in and of itself, this chapter takes its cue from the spoken words caught on the audio track in order to examine how what we human animals call speech can also be considered performance in and of the world. The words that issued forth from Gordon's mouth that I have transcribed for the opening of this chapter, make syntactical sense in their written form but they express much more than this when considered as speech or, as I prefer, locution.

Writing (as a branch of language) plays an implicit role in reinforcing the long-established, largely Western, paradigm of "human exceptionalism"³: that one of the things that separates us from every other animal is the so-called "language faculty," itself tendentiously assumed to be a key sign of human superior intelligence and, by inference, of inferior intelligence in all other animals. Therefore in this chapter I begin by reviewing the arguments levelled against this increasingly tenuous, though subtly persistent, distinction; one that has had far-reaching ethical implications within our era of the Anthropocene. From this viewpoint on language as intelligence marker, I'll pursue two alternative paths. The first, at the level of "communication" (rather than "language"), that allows for different ways of

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³ This term is explored in some detail below by reference to Linnaeus and Agamben. Agamben and other writers mark as key, Descartes's well-known distinction between the mind (intellect) and its physical support (body), a binary which would lead Descartes to a description of animals (lacking intellect) as "natural automata" in his letter of 5 February 1649 to Henry More. Rene Descartes, *Descartes: Philosophical Letters*, trans. and ed. Anthony Kenny (London: Oxford University Press, 1970), 244.

thinking intra-species and inter-species relationships and of breaking the hold of anthropocentric intelligence. The other path I'll take, which might seem contrary given what I've just said about language, is from the field of linguistics, where we find J. L. Austin's and John Searle's generative insights on a class of utterances they call "performatives." Although Searle focuses on the particular performative of the illocutionary act, I hope to show that in combination with wider ideas of communication, the illocutionary acts of humans can become interlocutionary performances between humans (single and multiple), other animals (single and multiple), and technologies.

I will keep returning from the generalities to the specifics of the 33-second recording, as it is a telling instance not only of how a particular assemblage of actants in a networked relationship articulate a meaningfully "unmarked" performance on the beach at Roebuck Bay; but also how, through the translation centre of the digital recording, some of these actants are able to migrate into other "marked" Performance environments, that of the studio and of the gallery. (The research findings explicated here are also implicated in the making and exhibiting of *Well how about that*, a key intermedial work in the creative component of my doctoral research.)

According to an Actor-Network Theory account, the 33-second recording is an inscription from the field in which many actants are seen, heard, and perceived to be in a networked relation to each other. We will look closely at the role each of these actants plays in relation to each other—which includes the technology of the recording itself—and how they go on to make further inscriptions in other networks with other actants. Humans in individual and collective form are most obviously actants in the network of Roebuck Bay. Less obvious is the way they also perform in the scene as living specimens in a history of taxonomically derived ontology. Behold the specimens.

Human Exceptionalism

Homo sapiens, Homo alalus, Homo faber, Homo loquens and loquax, Homo performans: in all these ways (and more⁴) has man been named,⁵ with the latter pairings owing their formations to the first. Homo sapiens is that binomial taxonomic term given to "modern man" by Carolus Linnaeus in the tenth edition of his Systema naturae of 1758 to describe the only surviving species of the hominid genus.⁶ The knowledge gathering within the field of palaeoanthropology and related discourse of how this particular species spread and became successful to the exclusion of all other hominids is ongoing but not our interest here. Rather, it is the second, qualifying term of the binomial system that reveals, firstly, how Linnaeus conceived of our uniqueness beyond the purely biological, and secondly, how various later thinkers sought to redefine that uniqueness according to other qualifications. It is as though Linnaeus, in trying to isolate the fundamental difference of our species, only opened that question to endless debate. Perhaps this was his joke: recognising that we would probably argue about it, he named us Homo sapiens, wise or rational person.⁷

Georgio Agamben interprets Linnaeus's naming as an impetration rather than a description; that the appearance of *sapiens* in the tenth edition is actually a simplification of the "old philosophical adage: *nosce te ipsum* (know yourself)... *Homo sapiens*, then, is neither a clearly defined species nor a substance; it is, rather, a machine or device for producing the recognition of the human." Agamben names this device the "anthropological machine," of which he identifies both a premodern version (from Aristotle to Linnaeus) and a modern version (from Darwin to current times). In both versions the machine functions as well as it does because it maintains radical divisions between the human and the animal. However, this is not a division created by absolute separation, but rather through

⁴ Enough, that is, to fill a book. Luigi Romeo, *Ecce Homo! A Lexicon of Man* (Amsterdam: John Benjamins B.V., 1979).

⁵ As Genevieve Lloyd reveals, use of the Latin *Homo* or the Greek root *Anthropos* are not simply to be assumed as the man standing in for both or all genders but rather point to an implicit alignment between maleness and reason. See Genevieve Lloyd, *The Man of Reason: the 'Male' and 'Female' in Western Philosophy*, (London: Routledge, 1993), ix-xvii.

⁶ Carolus Linnaeus, *Systema Naturae, Ed. 10, Vol. 1*, Salvii, Holmiae (1758).

⁷ Oxford English Dictionary Online.

⁸ Giorgio Agamben, *The Open: Man and Animal [L'aperto: L'uomo e l'animale*, 2002], trans. Kevin Attell (Stanford, California: Stanford University Press, 2004), 25.

internal exclusions and external inclusions. In the modern version, the nonhuman is isolated *within* the human, through the presumed prior existence of an ape-man without speech, *Homo alalus*, who evolves through history to create, for example, the non-man of the Jew. The premodern machine works symmetrically "through the inclusion of an outside, and the non-man is produced by the humanization of an animal: the man-ape, the *enfant sauvage* or *Homo ferus*, but also and above all the slave, the barbarian, and the foreigner, as figures of an animal in human form." Agamben's aim is to understand how both versions of the machine produce "bare life" (that is denied political existence but which simultaneously makes political order possible), in order that the anthropological machine (old and new versions) can be stopped. Agamben is receiving assistance in his mission from other quarters to which I'll return in a moment, but there are some more speaking hominids I'd like to introduce first.

One of philosophy's interlocutors in debates around the rational mind is Henri Bergson. In asking, "[w]hat, really, is intelligence?" he proposes a second cooperative model of modern man based on intuition. In Bergson's account, intuition neither supplants nor is supplementary to so-called "intellectual tendencies." Instead, he divides intelligence between two functions: intellect, that is, the mechanics of the mind's intellectual functions; and intuition, which he ascribes to the metaphysical. "Thus we have on one hand science and mechanical art, which have to do with pure intellect; on the other hand, metaphysics, which calls upon intuition." Bergson took the opportunity in *The Creative Mind*, the last of his publications, to clarify what he meant by intuition. There he insists that he does not mean instinct or feeling, "to the contrary: my intuition is reflection." This is also his definition of the metaphysical, the ability of our species to reflect on what we achieve in the physical world. Always a symmetry: "I value scientific knowledge and technical competence as much as intuitive vision. I believe that it is of man's essence to create materially and morally, to fabricate things and to

⁹ Ibid., 37. Agamben focused on the premodern version of the machine by reviving the Roman legal figure of *Homo sacer*, a form of bare life "who may be killed and yet not sacrificed" in *Homo Sacer: Sovereign Power and Bare Life*, (Stanford, California: Stanford University Press, 1998), 8.

¹⁰ Henri Bergson, *The Creative Mind: An Introduction to Metaphysics* [*La Pensée et le mouvant*, 1934], trans. Mabelle L. Andison (New York: Wisdom Library, 1946), 78.

¹¹ Ibid., 79.

¹² Ibid., 88.

fabricate himself. *Homo faber* is the definition I propose."¹³ He goes on, "*Homo faber*, *Homo sapiens*, I pay my respects to both, for they tend to merge."¹⁴ But the kind of merging Bergson is speaking of, despite the image of the hands, is nonetheless to do with mind and knowledge. His argument stems from antagonisms arising from the authority science assumes (and is granted) over philosophy in matters of unveiling truths. Partly he attributes that authority to talk or rather, chatter, and in a cranky digression on teaching methods, Bergson rails against the species "*Homo loquax* [chattering man, a parody of *Homo loquens*, talking man] whose thought, when he does think, is only a reflection upon his talk."¹⁵ Bergson uses the parodic term as a vehicle for criticising the imprecision of thought of which he himself and philosophy in general have been accused.

Terry Eagleton, on the other hand, revives *Homo loquax* as a means to point up the afflictions the language faculty has created for mankind. 16 Eagleton's tone is in marked contrast to the German philosopher and philologist J. G. Herder who published his *Treatise on the Origin of Language* (from which the epithet *Homo* loquens developed), just 14 years after the Systema. 17 Herder's evangelical belief in language's sensuous, intimate connection with the soul, led him to propose four "natural laws" of language including this, the first: "The human being is a freely thinking, active being, whose forces operate forth progressively. Therefore let him be a creature of language!"18 In our post-Enlightenment period, Eagleton finds the concept of a "linguistic animal" oxymoronic and in constant danger to its own kind. "If our bodies are what bind us to our immediate surroundings [Eagleton's summation of the animal], it is language which makes us potentially universal beings."19 Language is not the voice of the soul then, issuing us forth progressively as per Herder, but an instrument for extending our physical and moral reach into places we probably oughtn't go and at every turn courting hubris. In short, "the gift of language, like the Promethean gift of fire, is radically double-edged.... Language

¹³ Ibid., 84; my emphases.

¹⁴ Ibid., 85.

¹⁵ Ibid.

¹⁶ Terry Eagleton, "Homo Loquax: Talking Bodies," Globalizations 3, no. 1 (2006).

¹⁷ Johann Gottfried Herder, "Treatise on the Origin of Language (Excerpts)," (1772), https://www.marxists.org/archive/herder/1772/origins-language.htm. Excerpts taken from *Philosophical Writings*, trans. Michael N. Forster (Cambridge: Cambridge University Press, 2002).

 $^{^{\}rm 18}$ "Treatise on the Origin of Language (Excerpts)".

¹⁹ "Homo Loquax: Talking Bodies," 1.

allows us to abstract ourselves from the sensuous immediacy of the body, and only in this way can history get off the ground."²⁰ History, as Eagleton shows, is riddled with the effects of our abstracted selves: genocide, Iraq, weaponry, the World Bank, not to mention (he doesn't) the devastating effects this same abstraction has wrought on other-than-human creatures. Thus he falls into the "odiously anthropocentric" trap he states he wanted to avoid.²¹

From the field of Performance Studies and the moment of the postmodern turn, comes another perspective on *Homo faber's* self-fabricating quality. Victor Turner, in *The Anthropology of Performance*, renames this same quality "self-performing" and coins the term *Homo performans* whose "performances are, in a way, *reflexive*, in performing he reveals himself to himself [*sic*]."²² Turner's initial illustrations are from within the marked arenas of Performance where actors perform to audiences, and where, both individually and collectively they have the opportunity to "know themselves better."²³ Turner, along with his influential interlocutor, Richard Schechner,²⁴ invested a great deal in the model of theatre as *communitas* whereby,

... reflexivity is plural and is based on the assumption that though, for most purposes, we humans may divide ourselves between Us and Them, or Ego and Alter, We and They share substance, and Ego and Alter mirror each other pretty well—Alter alters Ego not too much but tells Ego what both are!²⁵

Both Turner and Erving Goffman in the latter's *The Presentation of Self in Everyday Life*, extend the vocabulary of theatre into "social" (unmarked) performances,

²⁰ Eagleton, "Homo Loquax: Talking Bodies," 2.

²¹ Ibid.

²² Turner, *The Anthropology of Performance*, 81.

²³ Ihid

²⁴ The influence of Schechner is mentioned early on in *The Anthropology of Performance*. Turner acknowledges Schechner's dual roles as "Professor of Performance Studies at New York University's Tisch School of the Arts, and former Director of The Performance Group, an avantgarde theatre company." Ibid., 4. See also Turner cited by Schechner in, for instance, Richard Schechner, *Performance Studies: An Introduction*, 2nd ed. (New York: Routledge, 2006 [2002]). ²⁵ Turner, *The Anthropology of Performance*, 81.

where the self-cum-actor, in performing and breaking roles, likewise transforms the self and potentially others in the social context.²⁶

The others and alters are all still assumed to be human. As Laura Cull, Martin Puchner and others reveal,²⁷ such an "extension" is really an anthropogenic cul-desac. Cull points out that Schechner, although taking seriously the findings of Jane Goodall's research into the social formations of chimpanzees, could only extend the possibility of "performance" to a few primates including humans. As with Turner, Schechner believes performance requires a reflexive self-consciousness presumed only available to higher primates, "[h]umans do consciously, by choice, what lower animals do automatically."²⁸ Here again, we find Agamben's anthropological machine fully operational.

Perhaps it is inevitable, not to say ironic, that the language dependency of a classificatory system such as Linnaeus's taxonomy would lead us into the prison-house of language. In which case, it is an opportune time to remember that, for all its faults, the 1758 *Systema* names and describes nearly 4,400 animal species of which *Homo sapiens* is just one.²⁹ *Homo sapiens* are outnumbered again. Nor do we keep our edges clean as both bacteriologists and philosophers often tell us. "Human animals live in symbiosis with thousands of species of anaerobic bacteria, 600 species in our mouths, which neutralise the toxins all plants produce to ward off their enemies, 400 species in our intestines, without which we could not digest

²⁶ Ibid.; Erving Goffman, *The Presentation of Self in Everyday Life* (Harmondsworth: Penguin, 1971). See also *Frame Analysis: An Essay on the Organization of Experience* (Cambridge, MA: Harvard University Press, 1974).

²⁷ Laura Cull, "From *Homo Performans* to Interspecies Collaboration: Expanding the Concept of Performance to Include Animals," in *Performing Animality: Animals in Performance Practices*, ed. Jennifer Parker-Starbuck and Lourdes Orozco García (Basingstoke: Palgrave Macmillan, 2015); Martin Puchner, "Performing the Open: Actors, Animals, Philosophers," *TDR/The Drama Review* 51, no. 1 (2007); Una Chaudhuri and Holly Hughes, *Animal Acts: Performing Species Today* (Ann Arbor: University of Michigan Press, 2014).

²⁸ Schechner, *Performance Theory*, 97-98; Cull, "From *Homo Performans* to Interspecies Collaboration: Expanding the Concept of Performance to Include Animals," 24.

²⁹ W. T. Stearn, "The Background of Linnaeus's Contributions to the Nomenclature and Methods of Systematic Biology," *Systematic Zoology* 8, no. 1 (1959): 4, 9. At the time of his writing, Stearn put the estimate of animal species numbers between 930,000 and 1,120,000.

and absorb the food we ingest."³⁰ We are at all times *internally* more-than-human as well as externally.³¹

In response to the too-narrowly anthropocentric schema of Performance Studies, Laura Cull proposes that, rather than simply giving some ground by including a few more animals in the mix, a rethinking of the category of performance and thus of the field is needed. In naming this field "Animal Performance Studies" she advocates not so much greater inclusiveness beyond the human, as per Schechner, but a re-orientation toward the animal (with the human as one instance). ³² Previous definitions of performance relying on apparently human-only qualities of "conscious behaviour," "pretence," and "intention" are all thus called into question by the "animal" that is (falsely) presumed not to possess any of these qualities. ³³ As Cull says,

[I]t could be that what is required is to abandon altogether our need to approach animals with a predetermined definition of performance already in hand, in favour of allowing performance to remain open to perpetual mutation and reconceptualization in the face of our encounters with animals.³⁴

Animal Performance Studies on the Beach

This is an apposite time to return to the beach at Roebuck Bay, to the animals that are gathering in the littoral zone to see what kinds of performance are taking place there amongst all the different actants.

³⁰ Alphonso Lingis, "Bestiality," in *Animal Others*, ed. H. Peter Steeves (New York: New York University Press, 1999), 38.

³¹ Sarah Whatmore, who coined the term in the context of cultural geography where she advocates a stronger conjunction of the *bio* and the *geo*, thus focuses on external relationality only. Whatmore, "Materialist Returns: Practising Cultural Geography in and for a More-Than-Human World," 602.

³² Cull, "From *Homo Performans* to Interspecies Collaboration: Expanding the Concept of Performance to Include Animals."

³³ See for example, the various essays gathered under the heading "Animals as Reflexive Thinkers" in Linda Kalof and Amy J. Fitzgerald, *The Animals Reader: The Essential Classic and Contemporary Writings* (Oxford: Berg, 2007), 55-111.

³⁴ Cull, "From *Homo Performans* to Interspecies Collaboration: Expanding the Concept of Performance to Include Animals," 24.

As the tide moves in to engulf the vast feeding area of the Bay, the wader species are mustered forward. We don't notice this sea-herding at first. Can't notice it, not with our human-animal capacities. Neither our visual nor aural perceptions can pick up what's happening way out there on the horizon. But out there, the birds are interacting, very precisely, with each other, with other organisms on and in the mud, with these and all the actants of their environment. While the birds do their feeding—for the moment, unaware of our human presence—I will try to relate to you the effectiveness of what it is they're doing. My aim here, in keeping with Cull's project, is to counterbalance the force of Gordon's chapter-opening utterances—so readily absorbed by the human ear and processed in the cortex—with the differently affective force of the waders' own phenotypic performances.³⁵ The kind of communication theory I'll be drawing on is the biosemiotics of Thomas Sebeok,³⁶ and the influence of Jakob von Uexküll to this thinker and many others.³⁷

The advantage of thinking communication as semiotics rather than linguistics is that semiotics can take account of systems for the transference of information prior to language and in so doing, beyond the human. In this way biosemiotics can be used as a powerful tool for shortcircuiting the easy assumption that equates human language with an intelligence superior to all other life forms.

In tackling the question of how any particular animal extracts from its environment meaningful and/or life-perpetuating information, biosemiotics understands life itself as a system based on the principle of negative entropy. Sebeok explains life, by way of Erwin Schrodinger's 1946 *What is life?*, as an "organism's astonishing gift of concentrating a 'stream of order' on itself and thus escaping the decay into atomic chaos—of 'drinking orderliness' from a suitable

³⁵ Here I'm understanding affect in the way Lorimer describes (see Chapter 1, footnote 26), as "the collection of shared and interconnecting forces operating between bodies". I describe this shared affect in more detail towards the end of this chapter.

³⁶ Thomas A. Sebeok, "'Animal' in Biological and Semiotic Perspective," in *What Is an Animal?*, ed. Tim Ingold (Boston: Unwin Hyman, 1988); *Signs: An Introduction to Semiotics* (Toronto; Buffalo: University of Toronto Press, 1994); "Biosemiotics: Its Roots, Proliferation, and Prospects," *Semiotica* 134, no. 1-4 (2001).

³⁷ For example Agamben, *The Open: Man and Animal*, 39-47; Brett Buchanan, *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze* (Albany: State University of New York Press, 2008); Ingold, *Being Alive: Essays on Movement, Knowledge and Description*, 76-88; Elizabeth Grosz, *Becoming Undone: Darwinian Reflections on Life, Politics, and Art* (Durham, NC: Duke University Press, 2011), 173-186. For a summary on Uexküll's *Umwelt* see Jakob von Uexküll, "An Introduction to *Umwelt,*" *Semiotica* 2001, no. 134 (2001).

environment."³⁸ Thus the first way to understand semiotics is not what one animal *means* to another (although Sebeok deals with this too) but how every particular animal individually reads its environment systematically. As Jakob von Uexküll neatly summarises, "every organism is so equipped as to obtain a certain perception of the outer world. Each species thus lives in its own unique sensory world, to which other species may be partially or totally blind.... What an organism detects in its environment is always but a part of what is around. And this part differs according to the organism."³⁹ The key here is the relationship between the *Innenwelt*, the organism's bodily structures, and its *Umgebung* or characteristic habitat that together constitute the organism's *Umwelt*. *Umwelt* is sometimes translated as "subjective universe" but I think this masks the importance of *Innenwelt* (the ways we—that is, all organisms—are uniquely equipped to inhabit and survive in the/our world).

Sebeok prefers to describe *Umwelt* as a semiotic model not just for explaining the vital functioning of the animal but also of how the animal reads signs from its environment through its receptor organs and translates these via a mesh of nerve fibres to its effector organs. ⁴⁰ In its simplest form, and speaking still of all animals, Sebeok summarises the "minimal model" of Theodore Schneirla's biphasic approach/withdrawal theory to explain how, for every animal, the same organs are used in two functionally opposed systems: one for seeking food and mates; the other for evading "noxious situations." Importantly, approach/withdrawal theory allows for "plasticity through experience," one that I'll return to shortly in relation to ecophysiology. ⁴¹ In this way multi-species semiotic models serve as one more powerful counter to René Descartes's already quoted "animals as automata" view. ⁴²

³⁸ Erwin Schrödinger, *What Is Life?* (Cambridge: Cambridge University Press, 1946), 77; in Sebeok, "'Animal' in Biological and Semiotic Perspective," 63.

³⁹ Jakob von Uexküll, "The Theory of Meaning," Semiotica 42, no. 1 (1982): 55.

⁴⁰ Sebeok, "'Animal' in Biological and Semiotic Perspective," 67.

⁴¹ Signs: An Introduction to Semiotics, 123.

⁴² Descartes's seventeenth century mechanistic views on biology have spawned many detractors in zoology, philosophy, and other fields, from early on to the present. Tim Birkhead relates the implications in ornithology's history in Birkhead, *The Wisdom of Birds: An Illustrated History of Ornithology*, 43-47, passim. Though Descartes also had his defenders (that he was misunderstood). For instance, John Cottingham, "'A Brute to the Brutes?': Descartes' Treatment of Animals," *Philosophy* 53 (1978).

The significance of *Umwelt* as semiosis is that it presents us with a way of thinking difference from commonality. What is common is that all animals are ever in the process of developing in relation to their respective environments. We are not then *Homo faber* so much as *Animalia faber*. As well as difference expressing itself through the variety of organisms, the environment itself is differently constituted through multiple animal perceptions. Before following Sebeok's path towards the evolution of language and speech in humans, let's see how the shorebirds are making the tidal flats as they are being made by them. To do so, we'll need to use some bird-human translators from other fields.

Shorebird biologist Danny Rogers did his PhD on shorebird habitats in Northwestern Australia. He says the geographical conditions for forming feeding sites such as the one at Roebuck Bay are rare in the world. Its special features are that it's low-lying, has a shallow gradient between land and sea, and a high tidal range, which together make for a feeding area several kilometres wide.⁴³ We amateur observers looking towards the Bay can only presume the "approach" side of Schneirla's approach/withdrawal model is working overtime at the moment. The birds' organs are directed at feeding. Over countless millennia, the shorebirds have adapted to the abundant food resources of Roebuck Bay that suit their physiology and needs during the non-breeding season. In awe-inspiring (to me at least) fashion, when the shorebirds reach their breeding grounds on the Arctic tundra they will completely change their digestive preferences and capacities to chime with what's on offer there. In the case of Bar-tailed Godwits, the species currently predominant in the tidal zone, they will change from eating bivalves and polychaetes in Australia and East Asian staging sites to eating semi-frozen berries in Siberia and later, as it starts to warm up, midges, craneflies, and other insects that are suddenly released from the permafrost.44

In the tropical Kimberley of early April, there may be a lot of food for the shorebirds but the risk of overheating is high and potentially lethal. Rogers speaks of the birds' "behavioural ploys" to avoid this: panting, raising selected feathers,

⁴³ Danny Rogers, "A Southern Holiday?," in *Invisible Connections: Why Migrating Shorebirds Need the Yellow Sea*, ed. Jan van de Kam, Danny Rogers, and et al. (Collingwood, Vic.: CSIRO Publishing, 2010), 86.

⁴⁴ Keith Woodley, Godwits: Long-Haul Champions (Rosedale, NZ: Penguin, 2009), 150-151.

standing in shallow water or on wet substrates to dissipate body heat through the feet and into the water.⁴⁵

What is being described by Rogers and other ecologists who have spent many seasons studying the behaviours of shorebirds at Roebuck Bay⁴⁶ is a complex assemblage of inter- and intra-organismal performance. The panting, raising of feathers, standing in shallow water are all visible behaviours. To any human witness it's easy to imagine they are performing for us but we are incidental audiences for them. Rogers is describing just one humanly-observable part of a performance iceberg that has been and is constantly going on below the surface—that is, inside the organism—between the genotype (the genetic basis of the organism) and the phenotype (the measurable expression of the genes) of the bird. In semiotic terms this intra-action is called endosemiotics. Just as obscure to human eyes is the (exosemiotic) interaction between the phenotype and its environment. All these interactions and intra-actions will produce a demotype (a unified biosemiotics). This demotype is evaluated for evolutionary fitness, the concept that figured so highly in Darwin's theory of natural selection⁴⁷ or which I prefer to call the long durational performance of life-forming.

I should stress here that I don't adopt the term "performance" in the context of eco-physiology as handy word play. Rather, I'm taking my cue from the authors of *The Flexible Phenotype: A Body-Centred Integration of Ecology, Physiology, and Behaviour* whose work I rely on for understanding how the shorebirds at Roebuck Bay and indeed all organisms are always already performing. The ways that individual organisms can change their phenotype according to the demands of shifting environmental circumstances provide Piersma and Gils with their working definition of "performance" whereby "bodies express ecology." 48

As a readily available corollary from within the more marked arena of Performance, I can think of no more apt ethos than "bodies express ecology" for

⁴⁸ Ibid., 3.

⁴⁵ Rogers, "A Southern Holiday?," 88.

⁴⁶ See, for example, Theunis Piersma, Petra de Goeij, and Ingrid Tulp, "An Evaluation of Intertidal Feeding Habitats from a Shorebird Perspective: Towards Relevant Comparisons between Temperate and Tropical Mudflats," *Netherlands Journal of Sea Research* 31, no. 4 (1993).

⁴⁷ Theunis Piersma and Jan A. van Gils, *The Flexible Phenotype: A Body-Centred Integration of Ecology, Physiology, and Behaviour* (Oxford; New York: Oxford University Press, 2011), 4-5.

what one of the great exponents of Butoh, Hijikata Tatsumi, does. We can sense it here:

The rain, the school, the cabbage patch, the movement of the next door neighbor's dog. They are like so many broken boats drifting inside me in bits and pieces. From time to time the boats gather, speak, and consume the darkness.⁴⁹

And here, more directly stated by Hijikata's successor, Tanaka Min, in establishing his Body Weather Laboratory:

The body is not a set entity. It constantly changes, like the weather. The body that measures the landscape, the body in intercourse with weather, the body kissing [the] mass of peat, the body in [a] love-death relation to the day.⁵⁰

"Bodies express ecology" is the guiding principle for the authors of *The Flexible Phenotype*. However, the human-animal performance analogy that these authors adopt is not from the world of Butoh but rather from Antarctic exploration. ⁵¹ The device most ecophysiologists use to make performance comparisons between very different organisms is something called the Basal Metabolic Rate (BMR) which reflects the size and maintenance cost of the metabolic machinery needed for any particular task. ⁵² The baseline is the "minimum calorific requirement needed to sustain life in a resting individual." ⁵³ In the case of R. F. Scott's team in 1911-12, the cost of hauling sleds full of heavy equipment for 159 consecutive days covering 2,500 km in below-freezing conditions was very high indeed. The machinery, consisting of bodies, equipment, and geological samples, was ultimately too expensive to maintain over the duration and cost all five in the party their lives. In the case of migratory shorebirds on the East Asian-Australasian Flyway, their major annual performance is to fly themselves from their breeding grounds to

⁴⁹ Hijikata Tatsumi "Kazedaruma" speech of 9 February 1985 in Stephen J. Bottoms and Matthew Goulish, *Small Acts of Repair: Performance, Ecology, and Goat Island* (New York; London: Routledge, 2007), 96.

⁵⁰ Jonathan Marshall, "Dancing the Elemental Body: Butoh and Body Weather: Interviews with Tanaka Min and Yumi Umiumare," *Performance Paradigm*, no. 2 (2006): 56.

⁵¹ Specifically, Scott's 1911-12 expedition. Piersma and Gils, *The Flexible Phenotype: A Body-Centred Integration of Ecology, Physiology, and Behaviour*, 55. ⁵² Ibid., 76.

⁵³ Woodley, *Godwits: Long-Haul Champions*, 226.

their non-breeding grounds and back again *and* to survive it *every* year. As the scientists explain, no organism likes to exceed what's possible and will avoid the risk of doing so. We animals prefer to stay in "energy balance" most of the time.

In 2007 it was confirmed through the use of satellite-transmitter technology that a Bar-tailed Godwit tagged E7 flew non-stop (that is, not re-fuelling anywhere) from Alaska to New Zealand (more than 11,500 kms) over 9.4 days. ⁵⁴ This equated to a metabolic rate of 8-10 times BMR (similar to Scott's party) representing "a combination of metabolic intensity and duration that is unprecedented in the current literature on animal energetics." ⁵⁵ Citing the relevant literature, Gils and Piersma conclude that the trade-off of living in places that are relatively free from parasites, pathogens, and predators is worth the hard work. Through the long durée of evolutionary selection, the migrating Godwits' hard work is not punished by death. ⁵⁶

Reading Gils and Piersma's work with shorebirds, I find united two concepts of performance also instructive for the human arena. The first is at the organismal (biosemiotic) level; that is, where the interactions between genes expressed through phenotypes adjusting to environmental demands over short (circadian) and medium (circannual) timescales affecting long (evolutionary) timescales are an ongoing adjustment. The authors go so far as to "emphasise the immense 'creativity' of the evolutionary process in response to ecological challenges,"⁵⁷ a view that is echoed in Elizabeth Grosz's own elaborations on the "transformational" processes of evolution.⁵⁸ The second kind of performance is brought out by the first, whereby, under certain prescribed time-space conditions and necessities, the body is taken beyond its baseline functionality and displays the extreme energetics of what it can do and be. No wonder the first sighting of the returning Godwit E7 to the mouth of the Piako River in the north island of Aotearoa New Zealand excited such popular and worldwide media attention or

⁵⁴ Piersma and Gils, *The Flexible Phenotype: A Body-Centred Integration of Ecology, Physiology, and Behaviour*, 75; Woodley, *Godwits: Long-Haul Champions*, 206.

⁵⁵ Piersma and Gils, *The Flexible Phenotype: A Body-Centred Integration of Ecology, Physiology, and Behaviour*, 75.

⁵⁶ Ibid.

⁵⁷ Ibid., 6.

⁵⁸ Grosz, Becoming Undone: Darwinian Reflections on Life, Politics, and Art, 170.

why the bells of Christchurch cathedral once rang at the sighting of the first Godwit's return to the Avon-Heathcote estuary each September.⁵⁹ Durational performances by humans (marathon athletes and large *P* Performers alike) are likewise marvelled at and applauded by audiences who recognise that the environmental demands placed on the organism have been met by disciplined and committed bodies through ongoing, often imperceptible adjustments.

With this different understanding of performance in hand, brought to us by another animal species (and its human translators), it's time to re-consult Sebeok on our own biosemioses. How to understand hominid non-verbal and verbal performances according to our own *Umwelten*; more particularly, what are the affective qualities of Gordon's utterances beyond or behind their denotative sense?

As related above, biosemiotics is a framework for understanding both how each organism extracts information from its environment according to its receptor organs and how it outputs this information through its effector organs in a functional cycle. In his final chapter, Sebeok briefly describes how language emerged for humans as a secondary level adaptation from hominids' evolving cognitive capacities. 60 Starting with *Homo habilis* of about two million years ago with its brain volume of 600-800 cc, capacity increased in Homo erectus (800-1,200 cc) and further, to the current form of *Homo sapiens* appearing only forty thousand years ago with average brain size of 1,500 cc. Language was only one marker of the human distinction (other examples being tool and fire making), contributing to and made possible by growing cognitive capacity. Language's current role as communication system expressed by speech and later writing was a derivative "exaptation" of cognitive capacity—a fringe benefit if you like. And, as Sebeok reminds us, communication "was routinely carried on by non-verbal means, as in all animals, as it continues to be in the context of most human interactions today."61 As such, he calls this kind of non-verbal modelling primary. He goes on to explain that for hominids, language, in that it incorporates a

⁵⁹ A tradition that has been distributed to other church bells since the Cathedral's tower was destroyed in the February 2011 earthquake. See

http://www.radionz.co.nz/news/regional/58357/cathedral-bells-welcome-godwits, accessed 23 February 2016.

⁶⁰ Sebeok, Signs: An Introduction to Semiotics, 117-127.

⁶¹ Ibid., 124-125.

syntactic component, is secondary and the combination of the primary and secondary, the blending and assembling together of non-verbal and verbal, gives us a tertiary model of communication. The result is: human culture, "the most creative modelling that nature has thus far evolved." That's how Sebeok puts it, a little too triumphantly for my taste. However, based on the way we've already seen the synergy between Uexküll's *Umwelt* theory and the ecophysiologists' idea of the flexible phenotype, I would want to adapt Sebeok's conclusion to say that the primary model of communication as shared by all animals and the secondary model of linguistic communication as exapted by hominids does not produce human culture per se, but rather, multispecies performance of variety far exceeding any conceived either by humans or for humans only.

Multispecies Interlocutors

Within this general framework of multispecies semiosic performance, I want to return to Gordon's utterances on the beach as picked up on my 33-second video file. It is *words* that Gordon speaks and they do have syntax. However, in being synchronous with the image track of the video they are also implicated in the time-locked assemblage of humans, birds, technology, and environment. It may seem counter-intuitive at this point to go even deeper into the world of linguistics but I believe there is something important to be gleaned from the work of J. L. Austin and John Searle in their elaborations on "performatives." In keeping with the multispecies ecology of this chapter and indeed, the noted playfulness of Austin's own writing style, I want to treat his performatives performatively; to extrapolate something more-than-human from these seemingly human-only speech acts.

Let's start with a short revision of Austin's initial isolation of what he coined "performatives." The first, most obvious thing to say is that Austin focuses on instances of the spoken word: utterances. The particular class of utterances he wants to consider all have "humdrum verbs in the first person singular present

⁶² Ibid., 127.

⁶³ Austin, *How to Do Things with Words*; John R. Searle, "How Performatives Work," *Linguistics and Philosophy: An International Journal* 12, no. 5 (1989).

indicative active."⁶⁴ Here he is only describing, not defining, their common features. He narrows the scope even further: the utterances he's looking at "do not 'describe' or 'report',... are not 'true or false'"; and "the uttering of the sentence is, or is part of, the doing of an action, which again would not *normally* be described as, or as 'just', saying something."⁶⁵ The first example he gives (which in today's context of heteronormative marriage law debates is more than ironic) is: "I do (sc. take this woman to be my lawful wedded wife)'—as uttered in the course of the marriage ceremony."⁶⁶

Very quickly we can see that none of the utterances made by Gordon on the beach is a performative according to Austin's formulations. None of Gordon's six short sentences is in the first person singular ("I"): the second person pronoun "you" could be singular or plural or not necessarily addressing a person at all. The verb "are" (to be) is mundane and is in the present tense but is not one of Austin's especially performative verbs. "Wonderful" is a statement of effect signifying affect but again, doesn't fit the kind of "performative" utterance under scrutiny. Taken together as a block, Gordon's utterances are responsive rather than active. His chain of utterances indicates the performance of a receiver or a spectator (or spectactor, in Boal's sense) as pointed out in the previous chapter. So if Gordon doesn't do something in his sayings-something, then why pursue the performative path? Because, I contend, other actants are performing performatives according to Austin's schema and it is these performatives that are inciting Gordon's responses. The performatives that I want to identify, however, don't take the form of verbal (human) utterance.

Austin's eighth lecture starts to make a place for the receiver as he elaborates a "doctrine of 'illocutionary forces.'"⁶⁷ Here he switches from "utterance" to "locution" to indicate the use of full units of speech and not just sounds. And then he identifies three different kinds of locution as: locutionary, illocutionary, and perlocutionary acts. While all three can be called locutionary acts (the act *of* saying

⁶⁴ Austin, *How to Do Things with Words*, 5.

⁶⁵ Ihid

⁶⁶ Ibid. This example comes with the editor's footnote: "Austin realized that the expression 'I do' is not used in the marriage ceremony too late to correct his mistake. We have let it remain in the text as it is philosophically unimportant that it is a mistake. J. O. U." ⁶⁷ Ibid., 100.

something), illocutionary and perlocutionary acts have "force." Gordon certainly performs locutionary acts whereby some, such as "there you are" and "there you are, you won't get much better than that," fit Austin's specific example of "making an identification" although it's unclear who or what is being identified by the "you." Illocutionary acts are what Austin has been calling performatives: the act performed *in* saying something. Perlocutionary acts are those where "saying something will often, or even normally, produce certain consequential effects upon the feelings, thoughts, or actions of the audience, or of the speaker, or of other persons." This is the act performed *by* saying something. Gordon's locutionary acts are the effects (that is, the result of the force) of the previously unacknowledged perlocutionary acts of other/s. Who or what others?

At Roebuck Bay, we're at the start of the Godwits' next—and for some, first—circannual performance. Preparations have been intense for the birds: not only have they been preparing for the long flight but also for breeding when they reach their destination in the Arctic. What the birds do at our southern latitudes will affect how they achieve their transition towards and at northern latitudes. Keith Woodley will act as our guide for understanding the birds' intensive preparations.⁶⁹

Eating a lot of the right food prepares the migratory shorebirds for both flying and breeding. Firstly, the primary feathers of the wings need to be replaced so that they're in the best flying condition. The feather system is also important for evading predators, which means the bird can't afford to be flightless at any time. For this reason, wing primaries are replaced one after the other, taking between 100 and 120 days to complete, over which time high-energy proteins need to be consumed. Closer to departure time, feathers on the cheeks, breasts, and bellies

⁶⁸ Ibid., 101.

⁶⁹ What follows is gleaned mostly from Chapter 4, "Feathers and Fat: Preparing for Migration" in Woodley, *Godwits: Long-Haul Champions*, 65-75. Woodley is manager of Pukorokoro/Miranda Shorebird Centre on the Firth of Thames, New Zealand (site 19 on the East Asian-Australasian Flyway Network). I should note here that Woodley and other New Zealand observers such as Phil Battley are observing a different sub-species of Bar-tailed Godwit (*Limosa lapponica baueri*) also common to the Australian east coast, while the population observed at Roebuck Bay is *Limosa lapponica menzbieri*. They take similar routes through East Asia but breed in different parts of the Arctic (Alaska for the *baueri*, Siberia for the *menzbieri*). The behaviours of the *baueri* subspecies as described by Woodley and Battley are not sufficiently different from the *menzbieri* ssp to warrant ongoing qualification.

begin to moult and change to the orange-chestnuts of breeding plumage. And finally, more noticeably, the feathers on the backs, shoulders, and wing coverts change colour too. Colour change has different functionalities, not all to do with attractiveness for breeding or camouflage on the tundra. For example, the melanin that creates the colour also strengthens the feather; the darker colours might also protect them from damaging UV radiation. As departure time approaches, the birds become hyperphagic, "clinically obese." Some food is converted to protein for muscle build-up but mostly it produces huge quantities of fat for en route fuel consumption. At take-off, a Bar-tailed Godwit can be "an incredible 55 per cent fat—more than half of their body mass!"70 To make room for the extra fat load, shorebirds will shrink their gizzards and guts, organs that would be an otherwise useless weight burden during flight. The birds will take on fuel until the very last moment before departure. But how is that moment decided?

A striking example of how "bodies express ecology" is the timing of the obligate phase in long-distance migratory shorebirds.⁷¹ Zeitgebers (time-keepers) are timed signals given by the environment to trigger the endogenous circannual rhythms in individual birds. It's widely thought that photoperiod is the primary environmental Zeitgeber as it's fixed by the earth's own annual tilted turning, correlative to any particular latitude. All of the migratory preparations described above are principally cued by photoperiod although additional cues like temperature, rainfall, breeding density, and food availability might fine-tune such timings.⁷² When it comes to the day of migration, the schedule is tight, again regulated by photoperiod. Fieldwork studies have shown that although the migration event of a particular Godwit population might take three to four weeks, any particular bird will leave within the same week each year.⁷³ Choosing the exact moment within the day seems to be just that—a matter of choice after conversation with the wind and tide.

⁷⁰ I felt it necessary to borrow Woodley's exclamation mark. Ibid., 73.

⁷¹ Scott B. Terrill and Kenneth P. Able, "Bird Migration Terminology," *The Auk* 105, no. 1 (1988): 205. The authors recognise that all migratory birds can have obligate and facultative phases of migration so have proposed the terminology "annual migrant" and "partial migrant" to replace previous terms "obligate migrant" and "facultative migrant".

⁷² Janice Wormworth and Cagan H. Sekercioglu, Winged Sentinels: Birds and Climate Change (New York: Cambridge University Press, 2011), 13.

⁷³ Phil F. Battley, "Consistent Annual Schedules in a Migratory Shorebird," *Biology Letters* 2, no. 4 (2006): 517.

Birds clearly have acute sensibility to weather conditions at both local and more regional level. Prior to some departures at Farewell Spit birds did not perform "pre-migration" flights which would have given them the opportunity to assess wind speed. This suggests that their experience of winds earlier in the day was sufficient to make a "decision" to migrate, or that they can assess wind speed independent of their own flight.⁷⁴

After the decisive moment, often around mid-tide, it's also been observed that it will take some initial flight zig-zagging before flock direction is settled, likewise some moments before the classic flock formation of echelon or vee is established.⁷⁵

At Roebuck Bay on Friday 6 April at 7.38 pm, almost precisely three hours after the low tide and three hours before the high tide, a flock of 42 Godwits has found its direction and shape and is flying low and north towards us on the beach, me with Gordon's camera, Gordon with his binoculars, others further along. Between the sounds of various human voices we can just pick out the sounds of the birds' combined vocalisations. Let's try to hear the birds as described by an acute human listener. In mid-March Keith Woodley is looking at a flock of Godwits on the flats at the Miranda Observatory, New Zealand:

Although the birds are over 100 m away their loud chatter sweeps clearly over the flat. But there is something different in these godwit sounds. This is not the familiar soundtrack from the last few months at this roost; there is a restlessness to it—a sense of impending events…. In a heartbeat the flocks are aloft.⁷⁶

⁷⁴ "The Northward Migration of Arctic Waders in New Zealand: Departure Behaviour, Timing and Possible Migration Routes of Red Knots and Bar-Tailed Godwits from Farewell Spit, North-West Nelson," *Emu* 97, no. 2 (1997). In Woodley, *Godwits: Long-Haul Champions*, 80.

⁷⁵ Battley, "The Northward Migration of Arctic Waders in New Zealand: Departure Behaviour, Timing and Possible Migration Routes of Red Knots and Bar-Tailed Godwits from Farewell Spit, North-West Nelson," 111.

⁷⁶ Woodley, *Godwits: Long-Haul Champions*, 65.

Or if we click this link on the Xeno-Canto bird sound archive we can <u>listen</u> to a flock of 20 migrating Godwits passing overhead as recorded by Nigel Jackett at the Broome Bird Observatory in the late afternoon of 26 March 2015.⁷⁷

We've already seen how shorebirds are always already performing semiotically (though not apparently linguistically) between their genotype and their phenotype and also between their phenotype and their environment. We've also seen that these performances have marked intensities such as high MBR during migration and the onset of *Zugunruhe* (migratory restlessness) triggered by environmental *Zeitgebers*. Now that we are again in the interactional contact zone at Roebuck Bay whereby the waders' intensive performances are being sensed by human organisms I want to claim that the birds' "non-verbal" communications *do* take on a linguistic character by virtue of their illocutionary force.

John Searle, in his elaborations and critique of Austin, did not accept all the instances in which performatives could be classed as actions. In fact he only allowed what Austin called "explicit performatives" to be classed as performatives. Searle believed that only "some illocutionary acts can be performed by uttering a sentence containing an expression that names the type of speech act, as in for example, 'I order you to leave the room.'"78 For Searle, intentionality, inherent in certain verbs, is important. For instance, in the above example the act is the explicit giving of the "order" not the leaving of the room. The hearer understands this as an "order" first (primary speech act) and a "statement" second. The illocutionary force obtains to an order being made and not a statement. He calls this the "self-guaranteeing" quality of performative utterances.⁷⁹ Other examples he gives are [I] promise, decree, and pledge, which closely correspond to Austin's class of "commissives" including [I] promise, undertake, bind myself, vow, shall, et cetera.⁸⁰

⁷⁷ Record XC233204, Xeno-Canto bird sound archive, accessed 26 February 2016, http://www.xeno-canto.org/sounds/uploaded/KXKBPMRFTY/XC233204-BATG_Departure_20150326_1750.mp3.

⁷⁸ Searle, "How Performatives Work," 535.

⁷⁹ Ibid., 538.

⁸⁰ Austin, *How to Do Things with Words*, 157-158.

The final quality that Searle draws out from such performatives is that they have the "peculiar tense [of] the dramatic present,"⁸¹ by which he means an event that is instantaneous with the utterance. "I promise to return" is an event of promising, where the promise occurs at the moment of its utterance. The event of returning which might take months or not at all is of no consequence to the dramatic present of the promise.

We can now see how these qualities of the "explicit performative" can be folded into the wings of the 42 migrating Godwits at Roebuck Bay and the dramatic present of 7.38 pm, 6 April 2012. With their entire being the birds are saying, "I bind myself to flight," "I envisage my path," "I mean to breed," "I promise to return." All these performatives are acts of commission or intention and so are self-guaranteeing in the linguistic sense. [I] bind myself, envisage, mean, and promise are all acts made in the dramatic present. The success of the birds' flying, migrating, breeding, and returning alas cannot be guaranteed. The first set of primary acts, made in the dramatic present, are performative in their own right and provoke like responses from human spectactors.

As the birds fly closer, over and then away from the humans, the perlocutionary force of each of these embodied avian performatives is registered by each one of us on the beach, each of us within our own subtly different perceptual *Umwelt*. There's Dave, the volunteer from the RSPB, Cornwall: he is combining his skills of bird surveying with his duties at Broome, and is counting the numbers of departing birds per flock according to their species. There's me, intent on keeping a well-defined flock in video frame: I've delegated my responsiveness to the visual/aural prosthetic of the camera. My locutions are largely technological. And there's Gordon: part of his present *Umwelt* is also formed by me and my desires to record a "good" flock with his camera. The migratory Arctic terns he came to know decades ago in the Royal navy have affected his phenotypic memory. That experience, as much as the things that he is presently experiencing, are affecting his readiness to respond. The pronoun "you" in most of his locutions is therefore plural. It refers most obviously to the birds, but also to me with the camera, to

81 Searle, "How Performatives Work," 556.

others in earshot, and to Gordon's experience of simply being in the world in the dramatic present created by the birds. Therefore "you" is the "I" of Gordon too.

As the 33 seconds of intensity passes across the Lumix camera lens I hold, something of all our illocutions are inscribed onto the time-space of the video medium. In their raw recorded form, they are but fragments of the much longer and larger multispecies performance of "Migration Watch": a little of the birds' long migration; a little piece of data for the migration count; a little moment of Gordon's ongoing though intermittent "bird injections", memory, people, and himself; and a little length of video footage. Fragments yes, but combined they form an interlocutionary record.

Playing back the footage without the audio track, it looks like I've caught exactly what I had originally wanted: something seamless and simple—waders migrating. With the sound turned up, Gordon's vocalisations loud and clear on the left channel, other more-than-bird interlocutions are revealed. Playing it over and over, the camera's movement begins to assert itself. Now it's a choreography between moving birds and moving camera held by moving camera operator. Stutters between the various moving bodies can be picked up when played in slow motion: at times the birds appear to move backwards but it's just the camera/person not keeping pace with their trajectory. Slowed right down to frame-by-frame progression so that the "movement effect" (created by persistence of vision) breaks down entirely to become a series of stills, we start to detect just how much information about the birds' flight is lost, even within that 33 seconds. Between one frame and the next, each bird leaps forward and takes up a new shape in a new space. At this non-speed, the birds have entered into conversation with the history of film theory—of, or indeed against the "system of the suture"82 and the "ideological effects of the basic cinematographic apparatus."83

⁸² The suture was a metaphor used by film theorists along structuralist-semiological lines in the late 1960s and 1970s in which film's ideological power was argued in linguistic terms. Daniel Dayan, for

example, argued that "the system of the suture" functions as a "tutor-code." See Daniel Dayan, "The Tutor-Code of Classical Cinema" and William Rothman, "Against 'The System of the Suture'" in Bill Nichols, ed. *Movies and Methods* (Berkeley: University of California Press, 1976), 438-459.

83 A situation where difference created by the eye of the subject/camera is reconstituted by the projecting apparatus. See Jean-Louis Baudry and Alan Williams, trans., "Ideological Effects of the Basic Cinematographic Apparatus," *Film Quarterly* 28, no. 2 (1974).

But wait, what has changed here? How have the discourses of cinema suddenly entered the environment at Roebuck Bay?

What has changed is that we have moved from the specific time-space-event of the migration watch to other definite and potential time-spaces such as the editing suite, the performance studio, the projection screen, and the gallery. The 33 seconds of footage was an actant in the first network at Roebuck Bay but is now displaying its own inter-agential ability to migrate to other places. Just as the birds have the capacity of non-linguistic illocutionary force, so a piece of non-biological video footage can reveal all the features of the flexible phenotype.

When I leave Broome for return to Sydney, I take this particular piece of footage into the studio environment. There it enters a translation centre with other actants that include charcoal, paper, projector, lighting, and cameras. The force of the birds' whole-bodied illocutions directs my journey across the sky-paper, making new inscriptions (Figs. 18–24).

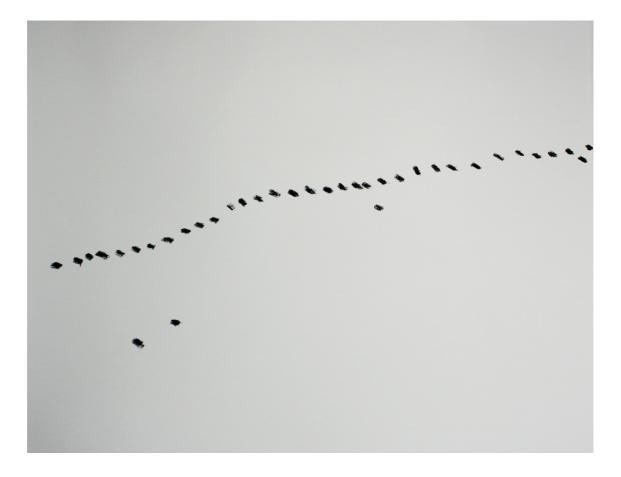


Figure 18. Barbara Campbell, *There you are, you won't get much better than that (drawing 3),* 2014, process state, charcoal on Stonehenge paper, 290 x 183 cm. Photo: Barbara Campbell. "Between one frame and the next, each bird leaps forward and takes up a new shape in a new space" (97).

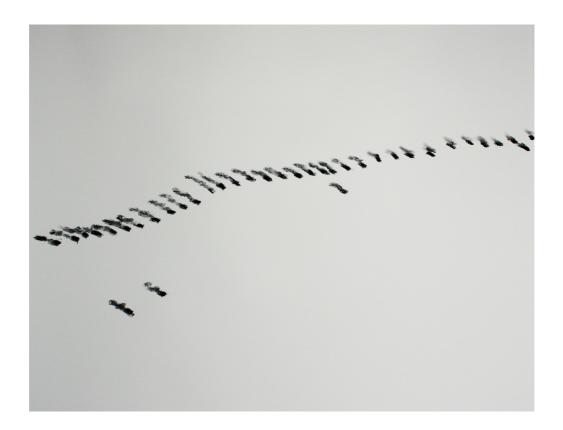


Figure 19. Barbara Campbell, *There you are, you won't get much better than that (drawing 3),* 2014, process state, charcoal on Stonehenge paper, 290 x 183 cm. Photo: Barbara Campbell.



Figure 20. Barbara Campbell, *There you are, you won't get much better than that (drawing 3),* 2014, process state, charcoal on Stonehenge paper, 290 x 183 cm. Photo: Barbara Campbell.



Figure 21. Barbara Campbell, *There you are, you won't get much better than that (drawing 3),* 2014, process state, charcoal on Stonehenge paper, 290 x 183 cm. Photo: Barbara Campbell.



Figure 22. Barbara Campbell, *There you are, you won't get much better than that (drawing 3),* 2014, process state, charcoal on Stonehenge paper, 290 x 183 cm. Photo: Barbara Campbell.

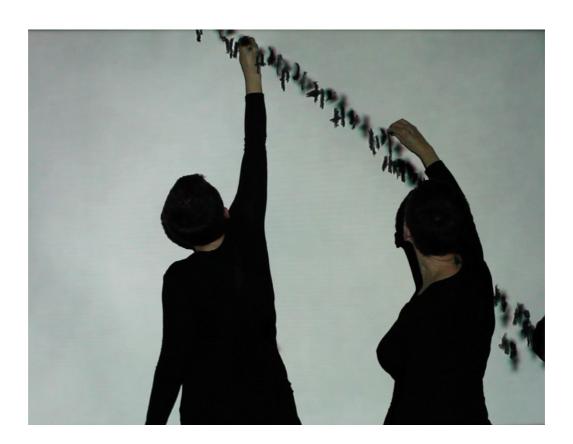


Figure 23. Barbara Campbell, still from *Well there you are*, 2015, single-channel video. Editor: Gary Warner. Photo: Barbara Campbell. Video excerpt at https://vimeo.com/129389835.

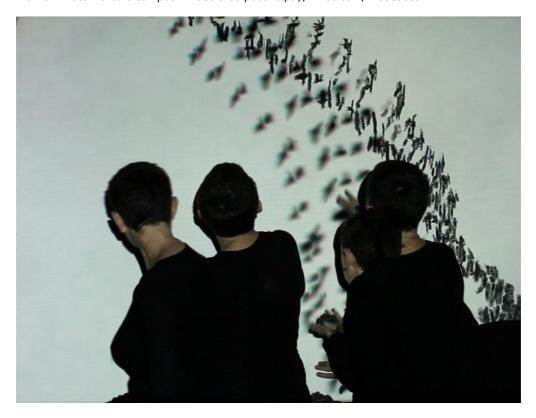


Figure 24. Barbara Campbell, still from *Well there you are*, 2015, single-channel video.

Some time later these inscriptions depart the studio for the translation centre of the gallery and enter into new networked relations with still other actants including walls, lighting tracks, movement sensors, computer-coded Arduino units, white boxes, speaker cones, and spectators-made-spectactors (Fig. 25). And in all these places the birds' illocutionary force will continue to inhere.⁸⁴



Figure 25. Barbara Campbell, *Well there you are,* 2015, responsive sound installation, featuring the voice of Gordon Ramsay at Roebuck Bay, Western Australia, 6 April 2012. Arduino programming and design by Sam Cole. Sound file editing by Gary Warner. Installed at University Art Gallery, University of Sydney. Photo: Barbara Campbell.

At Roebuck Bay we had become spectactors, committed to our role in Waving the Waders Goodbye. At the end of our fourth day of migration watch on the beach where I again had Gordon's camera directed at the flocks, Gordon can be heard addressing the birds directly: "there you go. Good luck. Have a good trip." Simon, who is already envisioning the future for the birds, chimes in with "next stop...." Gordon, remembering what the "experts" in the group had said previously, follows through with "next stop, Yellow Sea," pauses for a few moments, and returns to the

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⁸⁴ The footage plays an agential role in distributing performance to the three components of the work *Well there you are* (2015): drawings, responsive sound environment, and video work.

present time-space-event with "there's a straggler right at the back. Come on mate!"

Simon was already projecting forward into the birds' next staging site of the Yellow Sea, fringed by China, and North and South Korea. He may well have been worried on the birds' behalf as these are the shorebird feeding sites known to be under greatest threat from rapid wetland shore reclamation and development. Beyond that, when the birds reach their breeding grounds in sites around the vast Arctic tundra across Siberia and Alaska, threats to survival may come from lack of the right food at the right time or greater predation. And again, after breeding, the long return journey will test the phenotypic resilience of each organism. Unlike the departures from Roebuck Bay each March/April, not many humans will witness these other vital stages of the birds' performance with their shifting environments. Their absence from sight will make their return appearance in September/October all the more significant as we will see in the next chapter, "Romans."

⁸⁵ Nicholas J. Murray and Richard A. Fuller, "Protecting Stopover Habitat for Migratory Shorebirds in East Asia," *Journal of Ornithology* 156, no. S1 (2015). Also see research work of the Fuller Lab, University of Queensland, accessed 22 March 2016, http://www.fullerlab.org/

Chapter 4

Romans

[A]nd just then there flew from the height the luckiest messenger, a lofty bird on the left, and all golden there came out the sun. Thrice four hallowed shapes of birds moved down the sky, and betook themselves to places lofty and of good omen.¹

This is no ordinary bird sighting. You can tell by the language: all those iterations of elevation and fortune: sky, sun, lofty, height, lucky, golden, and hallowed. The quote comes from a small sample of the still surviving lines of the *Annales* of Quintus Ennius written around the end of the third century BCE. The above is preserved within Cicero's *De Divinatione 1* and its translation is furnished by the late Classics philologist Jerzy Linderski. For the purposes of full explication, Linderski supplies the complete passage in Latin. Here is the original Latin for the passage above.

[E]t simul ex alto longe pulcerrima praepes laeva volavit avis, simul aureus exoritur sol.

Cedunt de caelo ter quattuor corpora sancta avium, praepetibus sese pulcrisque locis dant.

The subject is of no lesser import than the founding of Rome. The clinching statement follows, in Latin:

Conspicit inde sibi data Romulus esse propritim auspicio regni stabilita scamna solumque.

E. H. Warmington's 1935 translation completes the augury: "[f]rom this saw Romulus that to him, to be his own, were duly given the chair and throne of

¹ Linderski, *Roman Questions II: Selected Papers*, Bd. 44, 4; Jackie Elliott, *Ennius and the Architecture of the Annales* (Cambridge: Cambridge University Press, 2013), 67, 365. According to Elliott, 623 lines of Ennius's 18 books are preserved across many sources. Cicero preserves 69 lines in 21 fragments, so roughly 11 per cent of the poem. Both Elliott and Linderski frequently reference Otto Skutsche, *The Annals of Quintus Ennius* (Oxford: Clarendon Press, 1985).

royalty, established firm by the watching of birds."² Linderski's own translation comes after a long philological excursus: "[f]rom the gyrations of the birds (*inde*) Romulus sees (*conspicit*) instantaneously that through this sign (*auspicio*) is given to him a firm chair and a seat of kingdom (*regni stabilita scamna solumque*)."³

With philology, understanding is wrought from text in its original language and context. For Linderski, the context is augural law, discerned through lore. In "Founding the City," the first essay of his *Roman Questions* II anthology, he adds the subtitle "Ennius and Romulus on the Site of Rome" which gives the impression that Ennius was present with Romulus on the Aventine on the day of the city's foundation despite the fact that they lived approximately 500 years apart.⁴ The ever-meticulous Linderski provides for me, through his slipping subtitle, the more appealing idea that the two figures are indeed together in Rome by virtue of the text. Thus, in Linderski's reading of the *Annales*, Rome is produced by the actors Ennius and Romulus working together under the direction of epic poetry, augural convention and the auspices. Linderski's entire paper can therefore be considered as a set of nested performances.

The outer layer is the philologist's own performance. Linderski carefully excises each Latin word to scrutinise its significance in Roman literature, in augural practice and in Roman history, before carefully placing it back in line. Here is one early example in the essay: "[t]he verb *servare* is a well-known technical term: it describes an act of deliberate watching for signs as opposed to a casual observation." 5

The next layer of performance is the poet Ennius's. While Linderski looks to Ennius for an accord between that author's account of the founding of Rome and augural law he was not particularly interested in Ennius's literary performance as a poet. Jackie Elliott on the other hand looks at the historiographic aspect of the *Annales* through its poetic form, the latter supporting the former (and not in dialectical

² E. H. Warmington, *Remains of Old Latin*, IV vols., vol. I (Loeb Classical Library, 1935), 30-31.

³ Linderski, *Roman Questions II: Selected Papers*, Bd. 44, 9.

⁴ By contrast with Ennius, Livy has Remus on the Aventine looking for signs and Romulus on the Palatine doing the same. See Serres on Livy's *Ab Urbe Condita* 1.5 in Serres, *Rome: The Book of Foundations*, 109. Linderski also notes the discrepancy: Linderski, *Roman Questions II: Selected Papers*, Bd. 44, 9.

⁵ Roman Questions II: Selected Papers, Bd. 44, 4.

opposition as other commentators she cites have found).⁶ Elliot's argument is that Ennius's use of the hexameter, and other Greek epic forms (specifically looking to the model of Homer's *Illiad*), creates an authority for the text that more conventionally formulated historical accounts didn't and couldn't achieve.⁷

The inner layer of performance is that of augury itself. The central purpose of Linderski's essay is to ask, *despite* Ennius's epic poetic choices, whether this fragment from the *Annales* can be read as a viable record of an augural instance, indeed strong enough in law to allow Romulus to claim royal authority.

It is this third layer of performance that I would like to re-present here as a plausible contemporary performance, bringing in a supporting cast from other fields.

In the role of dramaturg is the polymath philosopher Michel Serres who has himself written on the founding of Rome although his literary source is not Ennius but Livy, producing a "continuous and liberal reading of the first book of Livy's *Ab Urbe Condita*." Watching over my activity will be a group of experts in the field of bird observation, members of the Victorian Wader Studies Group (VWSG), my contemporary auspicators. This latter group will fully perform that verb isolated by Linderski (above), *servare*: the "act of deliberate watching for signs as opposed to a casual observation." I hope to show that it is not only Ennius who is with Romulus on the Aventine watching out for certain birds but that we are all there: Serres, Linderski, and members of the Victorian Wader Study Group. We are all Romans in this text.

What was it that Serres said? "We are always simultaneously making gestures that are archaic, modern and futuristic." The passage comes from that section in his conversation with Bruno Latour where they discuss Serres's topological, rather than geometric, conception of time. To use Serres's favoured metaphor: the

⁶ Elliott, Ennius and the Architecture of the Annales, Ch. 1 and 4 in particular. Elliott cites for instance A. Gratwick, "Ennius' Annale", in CHCL, Vol. II: "Latin Literature", eds. E. J. Kenney and W. V. Clausen, (Cambridge: Cambridge University Press, 1982), 62; E. Norden, Die römische Literatur, 5th edn., (Leipzig: B. G. Teubner Verlagsgesellschaft, 1954), 16; E. Fraenkel, "Some aspects of the structure of Aeneid VII," JRS 35 (1945): 13.

⁷ Ibid., 11-15.

⁸ Serres, Rome: The Book of Foundations, 9.

⁹ Serres and Latour, *Conversations on Science, Culture, and Time*, 60.

handkerchief when laid out flat "displays fixed distances and proximities," but when crumpled in the pocket, "two distant points are suddenly close, even superimposed." And when Latour presses Serres into naming the tool that he uses to establish relationships (*rapprochement*) between elements that were previously considered too far apart—to name the thing that causes the handkerchief to become crumpled, if you like—that thing on some occasions is the agent Hermes (the Greek God of message-carrying), on others, angels. "This god or these angels pass through folded time, making millions of connections. *Between* has always struck me as a preposition of prime importance." Later in this chapter I will use another kind of winged agent—the one that has been flying through this thesis from the beginning—the migratory shorebird. These are the birds we'll be looking for, to see what connections across time they will make.

Before the looking, there is the necessary preparation. The site must be prepared; the performers and audience must be prepared, in a ritual sense: physically and mentally. The difference between casual observation and deliberate watching begins in the preparation; it also constitutes the kind of framing that makes a meaningful action from a raw event, whether at Rome, or at any staging site on the East Asian-Australasian Flyway at which the shorebirds are known to land.

We'll start with the ritual framing in which the human actors can be recognised as performing. Ennius describes Romulus in his state of watching as *pulcher*, a propitious person who could detect propitious signs though not in a divinely ecstatic sense. With the establishment of the augural college (by either Romulus or his successor Numa), augurs were more like diplomats (in our terms), having an important function for matters of state. J. H. W. G. Liebeschuetz summarises this aspect well: public divination "provided a discipline, a discipline for politicians. It bound them to the rules of a strict procedure and compelled them to submit to the superior authority first of the priestly diviners, and then of the senate which in this field as in others had the ultimate say." He uses the term "heavenly diplomacy" to characterise the way the state used divination as a mechanism for maintaining

10 Ibid.

¹¹ Ibid., 62-64.

¹² Ibid., 64.

good relationships with the gods.¹³ In this regard augury was different from prophetic forms of divination (of the kind associated with the Greek oracles, for instance). The will of the gods was checked regularly through inductive means but it was affirmation for proposed action that was actively sought, not futuristic predictions.¹⁴ At Rome, the gods didn't judge whether the proposed action was wise, only if it should proceed or be delayed. The worst kind of response to a direct entreaty was "alio die" (another day).¹⁵ In brief, the relationship between gods and humans was one of constant consultation within a managerial framework. Just how that consultation and management was performed is what's important here in terms of the birds' role in the process.

Again, Linderski is instructive on methodology. In augural language, every person had the auspices but they were latent. To be used they had to be activated at a ceremony of auspication. But there were limitations. "Every person could auspicate—but only with respect to his own affairs."16 These were the so-called private auspices (auspicia privata), relating to domestic matters like the marriage ceremony. Public auspices (auspicia publica) were administered by magistrates and public priests within their respective spheres of competence such as joining in battle, convening of committees or the senate. These public auspications were only valid for one day. Augurs were more specialised, their auspications more permanent. The increased status given to a person, place, or ceremony which could be performed only by an augur through auguration could likewise only be reversed by an augur through exauguration. Conferring Romulus as King was clearly a case of increased status to person. So as not to confuse matters, in this chapter auspication will refer to the combined act of watching, comprehending, and accepting messages from the birds while auguration will refer to the increasemaking operation, such as occurred to Romulus.

¹³ J. H. W. G. Liebeschuetz, *Continuity and Change in Roman Religion* (Oxford: Clarendon Press, 1979), 8-9.

¹⁴ Martti Nissinen, "Prophecy and Omen Divination: Two Sides of the Same Coin," in *Divination and Interpretation of Signs in the Ancient World*, ed. Amar Annus (Chicago: University of Chicago, 2010), 341.

¹⁵ Linderski, "The Augural Law," 2295.

¹⁶ Roman Questions II: Selected Papers, Bd. 44, 11; "The Augural Law," 2295.

Unlike "natural" divination whereby the gods spoke directly to individuals who were divinely inspired (such as dreamers and prophets), the Roman gods listened out for the impetrative questions put by auspicants and communicated their answers through a variety of signs—the flight of birds (*ex avibus*) being the most common. The gods could also send oblative or unbidden signs, which could prevent a proposed action or stop one already in progress. As Linderski observed, the gods could evidently understand Latin but not speak it.¹⁷ Without the reciprocity of language, the role of the interpreter—augur, magistrate, or priest—was of another communicative order. However, it was not a matter of free interpretation. Remember, the key was affirmation, affirmation first of action then of state. The public needed to also recognise the surety of the responses. The impetrative chain of communication can thus be mapped out: state > auspicant > god (usually Jupiter) > birds as signs > auspicant > assured public > recording of results in augural books > continuation of state.

What's clear in this sequence is that the human anticipation for a bird sighting and the appearance of the birds is centrally framed. Purposeful watching, seeing, and comprehending (*servare* and *conspicere*) are the climactic assemblage of human-bird interactions in auspicatory performance. But equally, climax is impossible without well-established scene setting and audience investment.

We've so far described the religio-politico-cultural context in which Romulus as augur, looking for bird signs, takes place. And even though Romulus is not taking the augury in the time of the augural college, readers of Ennius and the later Cicero are. This is an instance in which several points on Serres's crumpled handkerchief are touching. Romulus as augur performs his auspication in one century and finds his audience amongst readers in other centuries, our own included.

Having established the context for Roman augury in general, it's time to describe Romulus's performance itself. Again, by way of Ennius, Linderski extrapolates the significance of the lines:

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¹⁷ Roman Questions II: Selected Papers, Bd. 44, 6-7.

Interea sol albus recessit in infera noctis.

Exin Candida se radiis dedit icta foras lux:

(Meanwhile the white sun withdrew into depths of night.

Then clear shot forth, struck out in rays, a light:)18

Romulus was taking his auspices at dawn. Ennius here followed strictly the established practice. The person who intended to auspicate would spend the night outdoors, and sleep in a hut, *tabernaculum*; he would rise early in the morning, *mane*, in silence, so that no untoward noise would disturb the auspices. He took his seat on a *solida sella*, apparently constructed of one piece, often of stone, so that again no creaking noise would be heard, and while looking out for birds he sat motionless, never turning his head or body. With his eyes he was thus marking out his field of vision, *templum* in augural parlance.¹⁹

Linderski is describing the site preparations for the augury and the bodily preparations for the performance by Romulus (and of the competing Remus on another hill) as augur. These preparations immediately precede the actual appearance of the birds but there is already an audience assembled before the dawn as the immediately preceding lines from Ennius make clear, "[t]hus were the people waiting, and held their tongues, wondering to which of the two the victory of right royal rule should be given by the event."²⁰

Little by little I've been working backwards through Ennius's description of the Foundation augury and Linderski's commentary on it in order to ascertain the spatial and temporal edges of the performance. That Latin word *templum* is significant in delimiting the space-time of augural performances and, as we will see with contemporary examples later in this chapter, in framing other human-bird performances in the open.

Templum is a term with two usages. One simply refers to a permanently inaugurated space from which the auguries could be taken. The other more

¹⁸ Warmington, *Remains of Old Latin*, I, 30-31.

¹⁹ Linderski, Roman Questions II: Selected Papers, Bd. 44, 5.

²⁰ Warmington, Remains of Old Latin, I, 31.

complex meaning refers to the temporary marking out of the field of vision in

order for the auspication to proceed. This second meaning is the more interesting for discussion of contemporary instances below. The auspicant is on a hill. Birds could be flying around anywhere in the sky or moving through the landscape. In order for the birds to be read as signs, a piece of the sky (templum aërium) had to be ritually marked out. That sky space was a reflection of the earthly space. "During the ceremony of auspication or augury the aerial and the earthly templum constituted an inseparable whole; the former could not exist without the latter."²¹ By gesturing with his special staff (lituus) and through the formulaic recitation of certain words (precationes), the auspicant fixed the boundaries of the skyscape by referring to features in the landscape. The left and right sides of his (that is, the) frame were marked by trees or, according to Linderski's reading of Varro, by other objects which might have come to stand in for trees but were always "called 'trees' for formulaic reasons."²² "[W]ithout moving his head,"²³ the tree markers were at left and right of the augur's field of vision. By this discipline, the augur's body was locked into the landscape.

The *templa* at Rome were preconditioned by the geography of Rome. The fabled seven hills provided ample prospect from which to survey land and sky all around. Indeed, the options were perhaps too abundant. Orientation was important: the auspicant looked east. And looking in that direction, the field of vision was then locked. There was no looking around once the ritual had begun. "*Video* is an all-important augural word; a thing that the observer does not see or which he regards as not seen, has no augural existence."²⁴

After the outer limits of the visual frame were defined, the internal frame was divided into two parts, "left towards the north and right toward the south."²⁵ Linderski also points to the importance of the sacred line, the *pomerium* that divided the city (*urbs*) from its surrounding territory (*ager*). This horizontal line,

²¹ Linderski, "The Augural Law," 2278-2279.

²² Ibid., 2279.

²³ Ibid., 2287, my emphasis.

²⁴ Ibid., 2265-2266. The viewer will also see how important this original meaning of *video* is to the video-mediated contemporary performances of my doctoral works *close*, *close* (2014) and *Well how about that* (2015).

²⁵ Roman Questions II: Selected Papers, Bd. 44, 12.

he says, may have further divided the frame into four quarters and separated the high-flying birds (*aves praepetes*) from the low flying birds (*aves inferae*).²⁶ The field of vision as *templum* became the stage on which certain birds were to perform. That word "certain" (*certa* in Latin) is doubly meaningful: it refers not just to particular things (birds, words, signs, or other things), but also as in "without question." Certainty is a matter both of specificity and assurance.

The augur was not the only body to be disciplined by the time-space of auspication. Prior to and during the observation of signs, *silentium* was required. *Silentium* was interpreted not only as the need for silence but more generally, "as the absence of any fault or error" on the part of all those present.²⁷ Even the wind had to comply. According to Plutarch (via Linderski), the augurs had to keep their lanterns open because "the flame of the lantern indicates the presence of wind, and when the wind blows the birds are unsteady and do not give reliable signs."²⁸ Linderski gives this as one example of how *silentium* might be broken but I suggest it can also be read as an example of how behavioural observations of birds in the secular realm could be ritualised in the augural realm.

Templa were temporary virtual structures in space. Their existence in time-space was quite fragile, as the policing of *silentium* suggests. The *templum* as described above (that is, the space marked out for auspication) was only active for as long as it took for Jupiter's approval to be observed and accepted. And lest Jupiter change his mind and countermand his signal, "the auspicants after they saw the desired signs would immediately jump up from their seat and their place of observation.... In this way they dismantled their field of vision."²⁹ In fact, vitiation (the ritual's destruction) might strike at any point of the auspication: before, during, or immediately after the observation. For all its formalised dimensions, it must have been a tense performance to conduct or witness.

In augury, *templum* is a disciplinary machine where persons, vista, space, wind, words, birds, and time are all delimited. *Templum* describes an embodied spatio-

²⁶ "The Augural Law," 2279.

²⁷ Roman Questions II: Selected Papers, Bd. 44, 16.

²⁸ "The Augural Law," 2252.

²⁹ Roman Questions II: Selected Papers, Bd. 44, 16.

temporal machine. *Templum* is both greater than *locus*—it is space increased through ritual intent—and it is less than *locus*—it is a space cut out from a larger space by the perceptual range and ritual recitations and gestures of one person acting with authority.³⁰

We now have some idea of how the *templum* was established in order for the birds to be observed (*servare*) and comprehended (*conspicere*) as signs. Linderski ends his essay back on the Aventine with the three main actants all performing together. He is ready to plot the course of the birds in relation to both Romulus and Jupiter. Romulus sees the 12 high-flying birds appear high up in the east, move down the sky, and fly northeast towards the abode of Jupiter.³¹ They appear from an auspicious direction, fly in an auspicious way, and fly off to an even more auspicious part of the sky. They don't settle anywhere in the field of view.

They keep flying.

At the end of Linderski's philological discussion on Ennius, the scholar is satisfied that all performed well: Jupiter communicated his approval of Romulus clearly through his avian emissaries and human interpreters; Ennius knew augural law well enough to convince his audiences that Romulus was soundly inaugurated as King; and Linderksi himself has proven this within the limits of his academic lecture/paper.

Like the followers of Romulus and Remus we are well aware of how many things could have gone wrong, and how many insidious dangers lurked around the auspicant's augural *templum*. But all ended well, no mouse squeaked, no *avis pestifera* appeared, and western civilization continued on its course from Rome to Bryn Mawr, and the present lecture.³²

^{30 &}quot;The Augural Law," 2271.

³¹ Roman Questions II: Selected Papers, Bd. 44, 19.

³² Linderski is referring to anecdotes that because the cry of a mouse was heard in the middle of a sacrifice, Fabius Maximus had to abdicate his dictatorship and Gaius Flaminius the post of Master of the Horse. Valerius Maximus 1.1.5. Ibid.

Of course we've only to look across to Livy (writing around 31-25 BCE), to discover how unwell it ended for Remus. Livy's account is clearly contestatory—between brothers and between auspicial interpretation.

An augural sign is said to have come first to Remus: six vultures. The augury had just been announced when double the number revealed themselves to Romulus. Each man was saluted as king by his own followers: one side based their claim on the grounds of priority of time, the other on the number of birds. Then, having met with altercation owing to the conflict of their heated passions, they turned to bloodshed: there, in the melee [*turba*], Remus was struck down and killed.³³

Livy goes on to introduce the rumour that it's Romulus who kills Remus. Not ending well at all. All begins in turbulence. As Serres tersely states in Chapter 1 of *Rome*—"Romulus kills Remus, and Rome is founded"—before going on to draw out a long lineage of turbulence and violence prior to the city's foundation.³⁴

But we won't be entering into an extended discursus of the differences between Romulus and Remus, Ennius and Livy, Linderski and Serres. My point at this juncture is to show that despite these widely divergent augural interpretations, scholarly performances, and outcomes for the brothers within the foundation story, the birds themselves perform relatively simple acts of flight and formation. Yet how utterly complex are the frames we've thrown around them as they move about and then away from the hills of Rome. Such performances are raised to the status of Performance under the increased ritual authority of auspication. The temporary, spatial and behavioural constraints of augural practice allow us to see how all the actants on stage (templum) are performing ex avibus.

³³ Steven J. Green, "Malevolent Gods and Promethean Birds: Contesting Augury in Augustus's Rome," *Transactions of the American Philological Association* 139, no. 1 (2009): 151. The translation of Livy 1.6.3–1.7.3 is the author's.

³⁴ Serres, Rome: The Book of Foundations, 9.

Werribee Auspications

And the birds keep flying.

Another group of avian observers has gathered on a roadside turnoff between Melbourne and Geelong for the annual December banding and flagging program of the Victorian Wader Study Group (VWSG) at Werribee Sewage Farm.³⁵ All of us have come from somewhere else to get here today. None of us is on home soil although some here have a relationship with this place stretching back decades. In order to be here each December we give up a part of our status as individuals and form into a group. From year to year at Werribee the group's constituent members will change but this is no obstacle, as it's the group as corpus that's important here. The key individual who takes charge of recreating that corpus every December is the person of Clive Minton. As this is my fourth consecutive year at Werribee I can now recognize the patterns of Clive's molding skills. He begins with his roadside briefing soon after the anointed hour of 7 am on December 28 (of any given year). We all leave our vehicles to gather within hearing range of Clive. One by one Clive will introduce us by name and by prior association with the VWSG history or any other salient affiliation. There is always a combination of old hands and young students, the latter often studying at Deakin University's School of Life and Environmental Sciences. Each year I'm introduced as "Barbara from Sydney who's studying the people who are studying the waders" and although I have this status as human observer, it's also assumed that I, like everyone here, will be participating fully in the activities of the bird-banding program.

Deputised by Clive in 2011, my additional responsibility is to write the annual field reports for Werribee. Quotations from these reports and transcripts from audio recordings in the field are interwoven through the second half of this chapter. In weaving the more reflective prose of the reports with the verbatim immediacy of the transcripts, I'm aiming to do more than provide a balanced, pseudo-cultural-anthropological account. I want to also allow the textual performances of Werribee to infuse this chapter with the meta-performativity of human voices.

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³⁵ Still referred to most commonly as Werribee Sewage Farm although it is officially Western Treatment Plant, a facility of Melbourne Water, owned by the Victorian Government.

According to the oft-cited analysis of ethnographer and folklorist Arnold van Gennep, we can already see key features of a "rite of passage" surfacing with the VWSG's arrival at Werribee. That is, we've passed through the first stage, of separation from ordinary social life, and have entered the second, liminal stage in which experiences will be unlike those of daily existence.³⁶

Having verbally knitted us together as a group with named (non-quotidian) attachment points, Clive's next spoken task is to outline what we're about to do here. As at Rome, the auspicant names the kinds of birds he expects to be sent. I'll let Clive explain:

The particular thing that we get from Werribee is Red-necked Stints [Calidris ruficollis], Curlew Sandpipers [Calidris ferruginea] and Sharp-tailed Sandpipers [Calidris acuminata], the three species of small waders. Stints, we can usually catch in quite good numbers. Curlew Sandpipers and Sharpies are thinly spread and especially at the moment they're not very concentrated and it's difficult to tot up the numbers so we sometimes have to resort to putting a little net here, a little net there, a little net there, and catching 20 at a time rather than 100s at a time.

We come every year and there are two objectives. One is, where we get good samples for those species, to get the percentage of juveniles in the population, which is an index of their breeding success last year. One of the things you need to measure on any species if you're studying its population is its productivity and its survival, its reproductive rate and its survival, and the best we can do in terms of measuring reproductive rate is to measure the proportion of young each year in the population. And as with most sampling, it varies very widely from nought per cent up on some species to 20, 30, even 40 per cent juveniles.

[Rain starts.] Oh blast it, that's just what we didn't want. Okay, we'll try to finish quickly and then get back into a bit of protection.

Public Liminality," Japanese Journal of Religious Studies 6, no. 4 (1979): 466-467.

³⁶ The Belgian folklorist Arnold von Gennep's *Manuel du folklore français contemporain*, 7 vols. (Paris: Picard, 1837-58) cited in Victor Turner, "Frame, Flow and Reflection: Ritual and Drama as

So getting reasonable samples at a number of different locations (including this location), for all species (but those three are the ones we get particularly here), is one objective. The other thing is: we've had a long history of banding Stints and Curlew Sandpipers here and that recapturing birds we've put bands on previously will give us an estimate of survival rates if you can catch enough. All of this is a numbers game so the more we get the better. Those are the main things we're trying to get today, and tomorrow, and the next day. It depends on the tide.³⁷

Here, as at Rome, certain birds (*avis certa*) act as signs, not of Jupiter's will, but of their own survival and breeding success. Despite the lack of religious context, the questions of the birds' survival and breeding success obtain valency through appeal to a higher order; that being scientific investigation, within which species conservation partly (but not wholly) sits. Without this scientific framing, the activities of the VWSG could not proceed, either practically or ethically.

It's possible you've already formed the impression that Werribee only has import to wader species but that would be a misconception attributable to Clive's augural effectiveness. Here at Werribee, certain actions, gestures, accessories, and clothing of members of the VWSG will be indistinguishable from those of other bird and bird-watching enthusiasts, for Werribee is a popular bird site for many resident waders and non-wader species too: Pink-eared Ducks, other *Anatidae*, and waterbird numbers and variety are legion. The site's proximity to Melbourne consequently attracts many bird watchers and the sub-category of "twitcher" (an obsessive collector of species sightings) throughout the year. The framing of intent (scientific for VWSG, nature-as-recreation or competitive sport for other birders) will provide the cut between the groups, although scientific intention sometimes has to be artificially reinstated by Clive for the VWSG.

Science as authorizing agency also grants authority to its agents, Clive being the most obvious authority figure at Werribee and within the VWSG. However Clive is neither the only, nor even the most academically credentialed, wader-bird specialist in the group assembled at Werribee. Most years there's a team from the

³⁷ Transcript of audio recording, VWSG at Werribee, 28 December 2012.

Centre for Integrative Ecology, Deakin University, led by its director, Professor Marcel Klaassen. During Clive's group briefing in 2014, this is how the introduction went:

Clive: Marcel heads a Department at Deakin University. He wears two hats: one is studies of migration overall and then studies of bird health and in particular the linkage of the two. Is that right?

Marcel: Yes, so for avian influenza, there's a scare still about avian influenza, notably high-pathogenic avian influenza. So, dangerous strains of avian influenza which are currently circulating in Southeast Asia. And of course there's always the worry that migrants will take it to our continent. Waders, they fly a long distance and indeed they pass by Southeast Asia so they might bring it. That is a matter of time really. The chance that it happens is really minute but it will happen. We already know from genetic analysis of avian influenza viruses that there is exchange between the continents and also between Australia and North America and Asia or Eurasia. We are asking to understand better the dynamics of avian influenza, how avian influenza spreads here on the continent and between continents and then how far waders play a role in that. Waders and ducks, those are the animals that are thought to be the major reservoirs and also the major vectors for the spread of these viruses. And now that there is so much happening with migratory waders—their environment is deteriorating rapidly in Southeast Asia and also in the Arctic—so how does that change their role as vector for diseases? We're making it a little bit broader still, so it's not just avian influenza but just generally, migrants they're excellent vectors for diseases, so anything that wants to spread itself, how does that role as a vehicle for transport, change with all these global change processes? So that's what our research is for.³⁸

To borrow an analogy from Marcel's own study of the birds, at Werribee certain *humans* are reservoirs and vectors for science in different ways. Here too, the difference between auguration and auspication at Rome is instructive. The increase-making operation of auguration is the increase-making operation of

³⁸ Transcript of audio recording, VWSG at Werribee, 28 December 2014.

scientific knowledge-production that Marcel and his team will later apply to samples collected in the field. However, their increasing of scientific knowledge relies upon the rituals of auspication—performances in the field—to bring it into being. Here, as at Rome, auguration, though obviously carrying weight, can only occur through the ritual performance of auspication. And remember, auspication is more than simply procedural actions. It is ritual: clearly demarcated, "readable" gestures and words by actants requiring rehearsal and skill according to highly specific religio-politico purpose.

We will soon see how important the various micro-performances conducted at Werribee are to the overall objectives of Werribee as scientific project, but is "ritual" the best frame for understanding what happens at Werribee every December? What difference does it make to the success or otherwise of the Werribee fieldwork for the birds as well as the humans? Answering these questions by drawing on the performative features identified in Roman auspication is the task for the remainder of this chapter.

Clive's introductory framing of our (scientific) purpose at Werribee reminds us of the ceremonial formulas (*precationes*, translated as "addresses" more than "prayers" by Linderski³⁹) publicly enunciated by the Roman augurs in delimiting the space-time and rules of auspication. Both Clive's verbal, now well-rehearsed, preambles and the augurs' verbal, formulaic pronouncements are clear instances of performative utterance, in that they are not just describing what will happen but, through their illocutionary acts, are creating the conditions for making it happen. Michel Serres takes this even further, identifying how the accumulations of performative pronouncement (judicial sentences in his example) will create the law itself, evolving dynamically over time. Performative utterances at Werribee, taken individually, attain their legitimacy through appeal to the higher order of science, but cumulatively they accrue to science the space of science. Clive's *precationes* will help keep Werribee as a permanently inaugurated space (a *templum* according to the Romans' first usage) of wader bird science. Further, in

³⁹ Linderski, "The Augural Law," 2252.

⁴⁰ Searle, "How Performatives Work."

⁴¹ Michel Serres, *The Natural Contract*, trans. Elizabeth MacArthur and William Paulson (Ann Arbor: University of Michigan Press, 1995), 76-77.

the minds of the participants, these introductory briefings will commence the transformation from Werribee as sewage farm (*locus*) to Werribee as shorebird-science space (*templum*).

We are still at the beginning of explicating the full vocabulary of performance at Werribee. You'll already notice that I've started to use "Werribee" not to signify the town of that name but as shorthand for the assemblage of three things: a particular place (the several hectares of artificial ponds and nearby shoreline which make up a fraction of Melbourne Water's Western Treatment Plant at Werribee, Victoria); plus a particular timeframe (from 7 am of December 28 to lunchtime of December 30, unless weather intervenes, of each year); plus particular fieldwork activities (fulfilling the VWSG's long term objectives to catch, band, and flag a good sample of three small wader bird species). Other "Werribees" exist for other people, animals, biota, and matter. Local resident and author Fatima Measham, for example, writes well of how much more than sewage farm Werribee is, and was. She points out that, as is often the case with histories of place in Australia, on the Iramoo plains where Werribee is located, the names of the original occupants, the Wathaurong, Woiwurrung, Bunwurrung and Yawangi peoples, have been overlain with the names of prominent individuals: Flinders, Hume and Hovell, Wedge, Batman, Lonsdale, and Chirnside. 42 The "Werribee" that I have come to know is a particular time-space-event of the VWSG's making.

Regarding the first in those three linked terms, the time of Werribee is precisely marked out and not at all arbitrary. Those three days each December represent the ideal confluence of human and shorebird circulations. In the week between Christmas and New Year's Day, the "normal" operations of the treatment plant are scaled back, making the facility more accessible to the VWSG's operations. One advantage is that the administrative complex with staff kitchen and showers is made available as an indoor camping site for VWSG fieldworkers staying overnight. For humans, this portion of the year also tends to be quite flexible and allows for good team numbers to be recruited. But it's the migratory shorebirds' calendar that has primacy here. As Clive reminds us every year, the percentage of juveniles in a population will indicate the breeding success of the species during

⁴² Fatima Measham, "No Shit," Meanjin 73, no. 2 (2014), https://meanjin.com.au/essays/no-shit/.

the previous season. Purposeful watching, seeing, and comprehending (*servare* and *conspicere*) are as important here as they are at Rome. Part of seeing and comprehending the birds at Werribee is the comprehension of the adult and juvenile birds' seasonal cycles and how these are expressed. In December 2013 I asked one of the Werribee stalwarts and VWSG data manager, Roger Standen, to take me through it.

Barbara: So, let's start with a juvenile [Red-necked Stint] being born in Siberia.

Roger: Yes, in June 2013. They come out as a chick. Once they're born, they're independent. They feed themselves. The parents are only around to keep predators away. That's why, with the majority of waders, once the juveniles are fully-grown, the parents leave. The juveniles are not quite ready to leave; they have a bit more fat to put on, a bit more polish, a bit more practice. And then they follow afterwards, on their own, where their parents are going. Which is a different story to most birds.⁴³

Roger's understated account of a Red-necked Stint's first migration south downplays one of the species' widely appreciated feats of migration: that the juveniles flying 10,000 km from northeastern Siberia to northern Australia and then on to other shore sites around Australia will do so without the experience of their parents to guide them. This virtuosic performance is one registered almost entirely through its affective qualities in humans on first acquiring knowledge of it. Witness the direct appeal to anthropogenic identification in this introduction to wader species:

Picture yourself as a young Red-necked Stint, a tiny wader, just four weeks out of the egg. You are on the tundra in north-eastern [sic] Siberia and winter is just around the corner. Soon after you were hatched, your mother left on her great flight to the south. Your father stayed with you for a while but, even before you had gained the power of flight, he then left too. The only Red-

 $^{\rm 43}$ Transcript of audio interview with Roger Standen, Melbourne, 30 December 2013.

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necked Stints left on the tundra are novices like yourself, untutored and with no experience of the journey that lies ahead....⁴⁴

By December all the wader birds, adults and juveniles, have returned to Australia from their breeding grounds but they're at different stages of their moult cycle, depending on age. The juveniles haven't quite begun to moult their primary feathers; the adults are continuing with their primary moult having started this shortly after their return in October; and the one-year-plus birds (juveniles who've spent one whole breeding season in Australia rather than migrating north) are also continuing to moult and will be hard to distinguish from the adults.⁴⁵ Sorting the juveniles from the adults by reading the primary wing moult is a practiced art.

It begins bird in hand, belly nestled into left palm. A simple action of the right hand fans out the primary feathers of the bird's right wing. This is the shape of the wing in flight. Imagine the beating it does to cover such distances. Imagine the beating it takes against sun and rain, over salty sea and smogchoked land. All this tells on the structure of the feathers. They are only designed for one great return journey, after which they are discarded and replaced, one by one, in sequence, generally from inner 1 to outer 10. The juveniles born in June on the other side of the world arrive in Australia with their very first feathers. Their primaries will only have done half the work of their parents. They are also out of synch with their parents who have arrived a couple of months earlier. The juvenile Red-necked Stints, for instance, reveal their youth to human enquiry with the tiniest crescent of rusty-buff fringing on one of their innermost median coverts. Shielded against the sun's bleaching ways for all that journey, a single human breath blown into the point where body meets wing can discover the hidden colour that is the final proof of youth. It's a small delicate moment but it speaks to the greater purpose of the program. The percentage of juveniles to adults indicates the success or otherwise of the previous year's breeding season on the far side of the planet. 2013 will be compared with 2012, with 2011, and so on back in

⁴⁴ David Hollands and Clive Minton, *Waders: The Shorebirds of Australia* (Melbourne: Bloomings Books, 2012), 5.

⁴⁵ Berrice S. Forest, "Ageing of the Red-Necked Stint," VWSG Bulletin, no. 4 (1981): 12-13.

time. Data is recorded. Patterns emerge. Predictions are made. Stories are written. 46

Marcel and his team will also be reading the birds, at the genetic level, but this will be done later in the laboratory not in the field. For both kinds of reading to occur, the birds need to be caught, live; and for that, constantly shifting interactions between birds, landscape, skyscape, and people, playing out in time, need to be managed.

We know little from the ancient literature and philological excurses of how the landscape of Rome mattered to the birds but we know a lot from shorebird science about how Werribee as time-space is used by wader species and how this in turn affects VWSG performances there. Werribee is a more-than-human landscape of world-renowned importance. Clive, through the corpus of the VWSG, is not the only body to have inaugurated Werribee as permanent wetland *templum* (Fig. 26).

In 1982 the Werribee Sewage Farm officially came to form part of the "Port Phillip Bay (Western Shoreline) and Bellarine Peninsula" site under the Convention on Wetlands of International Importance (Ramsar). Administered by UNESCO, with 169 contracting parties (member states) and over 2,000 registered sites, Ramsar counts Werribee as part of site number 266.⁴⁷ If there is a waterbird deity, Ramsar is its name. Through Ramsar's eyes one can look down on any one of the world's wetland sites. But perhaps because of its distance, Ramsar can't adjust its vision quickly enough for the birds and people on the ground. Australian bio-scientists Rob Clemens, Ashley Herrod, and Michael Weston deem the boundaries of site 266 too broad, as the site is actually an aggregate of five quite independent shorebird populations, Werribee being one of the five. Supporting their argument that the boundaries need to be redrawn because they currently compromise the sensitivity of monitoring programs, the authors cite the long-term banding data collected by the VWSG that proves the independence of the bird populations on the five areas.⁴⁸

⁴⁶ Barbara Campbell, "Victorian Wader Study Group at Werribee Sewage Farm, 27–30 December 2013," ibid., no. 37 (2014): 71.

⁴⁷ Ramsar, "Ramsar Sites Information Service," https://rsis.ramsar.org/ris/266.

⁴⁸ Robert S. Clemens, Ashley Herrod, and Michael A. Weston, "Lines in the Mud; Revisiting the Boundaries of Important Shorebird Areas," *Journal for Nature Conservation* 22, no. 1 (2014): 61.

The Ramsar *templum* of 266 is too broadly drawn. The Australian scientists favour the sensitivity of the narrower VWSG *templum*.



Figure 26. Shorebird *templum* at Werribee, 2013. Looking northwest over the Western Lagoon at Melbourne Water's Western Treatment Plant, Werribee, Victoria with the You Yangs in the background. Photo: Barbara Campbell.

Ramsar's mission in the conservation of wetland areas (including semi-artificial wetlands like sewage farms) does however point to the very particular kind of hydrography favoured by waterbirds and shorebirds. This is no Roman hilltop prospect. Werribee, for the birds, and therefore for the VWSG auspicants too, is not about verticality expressed as altitude but rather horizontality expressed by the ebb and flow of tides, rhythmically covering and exposing the shorebirds' foraging areas on the tidal flats adjacent to the sewage treatment ponds. Clive's portentous, "it depends on the tide" at the end of our first day's briefing in 2012 referred to the VWSG's likely catching success. It was shorthand for a complex correlation between tide heights at Port Phillip Bay, their timing and amplitude, how much of the tidal flats would be available for the birds to forage on comfortably and for how long, and when it would be more advantageous for them to move into the

mud-floored sewage ponds for alternate food supplies or for roosting. This barely touches on the variables at work in the network of other f/actors (to adapt the Actor-Network terminology) guiding the birds' movements in and out of the VWSG templum of Werribee. Gleaning from a 2013 report commissioned by the Victorian government in which the foraging and roosting habits of the same three small wader species targeted for catching by VWSG were closely monitored between 2001-2012,⁴⁹ the interplay of factors includes: the uneven depth, distribution, and density of benthic fauna across the flats exposed at different times and for different durations⁵⁰ (interacting with the birds' bill length where observations showed birds took prey from only the first centimetre of sediment depth⁵¹); the width of shoreline available (the narrower the area, the closer the birds to scrub, the more vulnerable to predators⁵²); the possible interference from avian over-crowding at upper tidal flats;⁵³ and the on-shore southerly winds driving water levels higher, restricting the foraging area and also causing physical difficulty for the birds.⁵⁴ Larger scale mitigating factors included the breaking of the inland drought in 2011 that had kept the Sharp-tailed Sandpipers feeding at inland waterways and away from the coast.⁵⁵ And then there is change at the still larger scale, with tidal flat exposure being affected by sea level rise as a result of global warming.⁵⁶

All of these interacting variables determine when, for how long, and in what numbers the birds choose to move into the ponds of the sewage farm, and into the field of view and field of operation of the VWSG for three days each December. Clive has augural knowledge of all these factors: he reads (and often co-authors) the literature; he consults the tide tables; he talks to the Water Board; he does reconnaissance trips prior to the group's arrival and he's been catching at

⁴⁹ Danny I. Rogers, R. H. Loyn, and Dougal Greer, "Factors Influencing Shorebird Use of Tidal Flats Adjacent to the Western Treatment Plant," in *Arthur Rylah Institute for Environmental Research Technical Report Series, No. 250* (Heidelberg, Victoria: Department of Environment and Primary Industries, 2013).

⁵⁰ Ibid., 6-10, 22-37, 45-46.

⁵¹ Ibid., 6.

⁵² Ibid., 44.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid., 1.

⁵⁶ Ibid., 43.

Werribee annually since 1975.⁵⁷ This knowledge of the birds' enmeshment with the ever-changing environment of Werribee flows through to the VWSG's auspications there each December.

The method of catching at Werribee is by cannon-netting, a highly regulated, licensed activity involving electrically charged explosives loaded into cannons, firing projectiles, attached to nets, over prescribed areas of land onto which birds have been "herded." All of these actions require team members to perform in established ways.

Having reminded us all of Werribee's significance as shorebird science *templum* at our first morning's briefing of 2012, Clive guides the group through the auspicatory stages of our actions. Performing well with the birds will become the VWSG's moment-by-moment priority.

Remember how Ennius, via Linderski, describes the preparations of Romulus for taking the auspices on the Aventine: rising before dawn, in silence, waiting in a special tent, sitting on a seat of solid stone, saying the right words, defining the space in the air according to tree-markers on the ground and orientation of the field of vision? The VWSG also has an elaborate procedure for preparing the aerial *templum* in which the birds will appear. And here too, the aerial *templum* has a corresponding terrestrial *templum*. As at Rome, "the former could not exist without the latter." At Werribee, that *templum* has a name as old as hunting. Its name is Net (Fig. 27).

Net is more than object and more than technology. Net is mostly composed of air. Net is able to change shape: waiting long and camouflaged on the ground; springing rectangular and barely visible in the air. Net must be well tended to. Net must be partly fixed to the ground but able to fly free too. Net must be imagined as ideal, unfurled rectangle before it can be furled and laid on the ground. Net will meet birds in air, all rising up together. Net will come down to earth bringing birds with it, bringing birds down safely, alive.

⁵⁷ Roger Standen, *The Father of Wader Studies: Tales of C.D.T. Minton*, (VWSG, 2015), http://www.vwsg.org.au/Mintontales.pdf, 91-118; 162-172.

⁵⁸ Linderski, "The Augural Law," 2279.



Figure 27. VWSG team furling the Net-*templum* on a narrow islet in Borrow Pit treatment pond, Western Treatment Plant, Werribee, Victoria with approaching bad weather to the east, 2014. Photo: Barbara Campbell.

Net is an actant obtaining agency in relation to its co-agents: the birds, the humans, the wind, water, and mud of Werribee. This is how I described the performance between actants in establishing the Net-*templum* in 2013:

Out of the VWSG covered trailer, we conga down two small mesh nets and all the relevant equipment for their firing: pegs, mallets, cannons, projectiles, firing cable, jiggling line,⁵⁹ electrical hardware, and a stool to which Clive anchors himself in the soft muddy sand. He focuses now on the wind. The net will need to fire downwind and it will be strong. Clive determines a higher firing angle than usual to counter these forces. Our roles are distributed: some tasks require chorus work like the net-furling and the grass-cutting; while others are cameo-like such as the laying out of the jiggling line, and the wiring in of the cannon charges. Each of us must faithfully play his or her part

⁵⁹ Jiggling line is a long cord with pieces of soft fabric tied to it at intervals. It's placed about 30 cm behind the back of the net, and jiggled by a hidden operator when birds need to be gently moved forward and into the safe catching zone of the net position.

or parts and entrust the dramaturgy to Clive. After some chorus work I'm given the cameo of mark-setter, that is, I must mark out, using available rocks, the imagined rectangles of the nets on the ground post-firing. Four rocks represent the four corners of the nets' safe catching zone. I stride out, placing one rock at two metres out and one at eight, first down one net side, then the other. Clive deems my stride lengths too extreme. Even this, it seems, requires rehearsal. The rocks need to be visible from several distant monitoring positions so that Clive and other designated spotters can ascertain when the birds are in the catching area and safe from potential harm. Without the markers, the net line seems to disappear from view.

Nets set, we retreat in cars to one end of the pond, in an attempt to restore the natural picture for any birds that will gather here to roost in an hour or $\rm so.60$

Now we have a *templum* within a *templum*. We have the permanently inaugurated site of Werribee as shorebird science and conservation *templum* and we have the temporary *templum* of the Net position, ready for the birds to enter. The Net is the *templum* of auspication. At Rome, the *templum* of auspication was fixed by the single auspicant's field of vision locked by and into the landscape. At Werribee, the *templum* is established through Clive's augural knowledge but because *templum* has been reified as Net, it's no longer locked to Clive's static bodily position. He is able to distribute the role of surveillance amongst multiple actors stationed around the low lagoon banks of the sewage farm.

It's early morning of 30 December 2012. This is how Clive prepares us for the next stage of performing the auspices:

Clive: There are thousands of waders on here, 95 per cent of them are Stints. But as with what happened with last night's twinkling, 61 when you start twinkling, the Sharpies particularly tend to leave first and come across here.

⁶⁰ Campbell, "Victorian Wader Study Group at Werribee Sewage Farm, 27–30 December 2013," 69.

⁶¹ Twinkling is the act of gentle bird shepherding. If the birds are a long way from the net, such as in an adjacent pond, people will be sent to twinkle or flush the birds from one pond in the hope they'll move to the "correct" pond. If the birds are already close to the net, twinkling is more delicately done by shuffling the birds along the ground without putting them up and away from the catching area.

So it's a selective twinkle, but we'll take anything that comes. We need about five people on this lagoon. There's two or three thousand small waders on there at the moment. We'll just do the best we can to make them come off there and hope a proportion of them come off and go to the nets over there. I'm going to get just initially Roger to go to the actual catching position. We'll get the rest of the cars through. We'll work out who's twinkling in a minute. Apart from twinklers and Roz, who I'd like to have a look at pond five before coming back and joining us if you would, the rest of us will go in here. We'll keep the cars further back until we've got waders in near the catching area. I think yesterday we might have had a deterrent effect on the four-cannon net by where the cars were parked and people walking around. We're going to keep a lower profile today and just get Roger forward initially. Eric and Ila, take two passengers with you so you've got four people coming in at various ways along this side. Would you mind going with them Hazel and Ken? Okay? Can you get rubber boots on?

With surveillance now distributed across a wide treeless area, eyes are trained on birds, voices directed at people. Since 7.50 am Roger and I have been sitting on the grass embankment of Western Lagoon looking directly at the catching area. Roger has his binoculars in his right hand, walkie-talkie in his left. The furled net has been well camouflaged so we only know the area by virtue of the rock markers (placed by someone else on this occasion) that define where the corners of the net will land once it's been fired into the air and over the birds. Apart from Roger and me in hearing range of each other, everyone else is communicating by radio. The twinkling teams on neighbouring lagoons have been sending small flocks off in the hope they'll land in Western lagoon to be herded into the roughly eight-by-eightmetre double-net templum. This smaller herding role is Jutte's, now wearing her chest-high rubber waders. For the last hour or so Clive has been directing her through water and mud, grass and samphire, closer and closer to the nets. Through their own movements, the birds have also been directing Jutte. We can hear in this next passage how the birds' non-verbal affectivity is inscribed in the inter-human verbal communications:

Clive to Jutte: Between you and the net, it's in all that vegetation, that's where all the Sharpies are. Can you see the catching area with about 30 birds in it now?

Jutte: I'm not exactly sure.

Clive: Walk along that spit almost straight at me, slightly to the right of me, near the metal pole, that's the catching area.

Jutte: Oh yep, I see.

Roger: Clive, there's a small group of Sharpies around the Pied Oystercatcher near that pole, that if Jutte keeps going in that direction it's likely she'll leave them behind I think.

Clive: Jutte, hold while we have a debate. [Clive to Roger:] To me, most of the Sharpies are to the east of where Jutte is at the moment, nearer the net but in the vegetation behind me, isn't that where she's facing between her and you, aren't those over there more the Stints? I can't see the pole with the Oystercatcher. Aren't those mostly Stints or are there Sharpies as well?

Roger: No, that's exactly right. There's just a small group of Sharpies further to her right. But the bulk of the Sharpies are in the vegetation between her and the net. Well it'd be better to get the Sharpies in the vegetation to walk forward if she can.

Clive: Okay, in which case if you can walk forward towards your car, your own car please Jutte.

Jutte: Okay.

Clive: Stop where you are, stop where you are. If you look directly towards my car, see the catching area with birds in it, the Sharpies are mostly in the vegetation your side, 20 to 30 metres your side of the catching area. You probably can't see them but that's where the main concentration of Sharpies is.

Jutte: Okay. I also have a flock of Sharpies just, really with the Stint, in the vegetation, maybe 30.

Clive: Okay if those are Sharpies you go round in whatever direction you think is right to get them towards the net. Very gentle now though because you might well flush the birds from the catching area if you're not careful.

Jutte: Okay but I might have to go back for a little bit.

Roger: Whoops. Stop, stop, stop, stop.

Clive: Brilliant. Those were Sharpies. Arm the net. Be ready to go at any moment (Fig. 28).⁶²



Figure 28. VWSG team at Borrow Pit lagoon, Werribee, readied for net-firing, 2014. Photo: Barbara Campbell.

We are now at the moment when the net is fired, when *templum* and birds are thrown into turbulence, when all actants—birds, humans, net, water, rope,

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⁶² Ibid.

vegetation become truly entangled in their inter-actions. It's an event I've never been able to record in real time audio or video as I, like everyone, am required to be fully present within the turbulence. In my written reports, through variations of the present tense, I've strived to reconstitute the event's inter-agential intensities. The following is from my first report of my first experience of cannon-netting (that is, not contiguous with Jutte's twinkling, above). As usual, it begins with Clive's countdown.

"Three, two, one, fire!"

There's no time to absorb what's just happened. Before the net has even landed, we are all running to the catching area, smoke from the cannon fire still hanging in the air. Clive is shouting and I am discovering how impossible it is to run with either speed or grace in borrowed gum-boots, over grass and through slimy water. Other people—the young team members—are whizzing past. "Thank goodness they are here," I think, not for the last time. How different is the energy now from the rhythms of watching and waiting that have so far ruled the day. What is happening now is pure intensity, for humans and birds. All our focus and action is on the safety of the birds. And for a significant proportion of the Red-necked Stints now fighting against the weight of the net, it's not the first time they've been in this situation. The first priority is to calm the birds' struggle. With as much speed and care as possible, we haul the shade-cloth over the netted birds. It seems to act like a blanket to a babe, causing the noise and flailing to settle down (including from Clive). We quickly move on to the next phase: getting the birds out from under the net and into the holding cages that have been magically assembled just behind the net.

Again, experience comes to the fore for the delicate operation of extracting birds from the net. Many of the less experienced are keen to learn. I'm not confident enough and prefer to act as a runner, taking the birds from those doing the extracting and delivering them to Clive to place in the holding cages. I'm quickly shown how to hold a bird firmly and safely, with head poking out between my index and middle fingers, while the body, wings, and

legs nestle inside the hand. There's little time to think but I am aware of each tiny body's feathers, smoothly foreign against my skin.⁶³

With all the birds safely in keeping cages, sorted according to species, able to stand, as the morphology of their legs demand, and out of harm from net, water, heat, wind, overcrowding, and predators, the first half of the performance of auspication—of bringing the birds into the field of view (*servare*)—is complete. The procedures that follow: of reading the wing moult, of measuring biometrics with special implements (Fig. 29), of banding and flagging the birds' legs with pieces of engraved metal and plastic (Fig. 30), will be carried out by VWSG members while the science teams will be taking blood and faecal samples. All these procedures, micro-performances in themselves, are part of the second suite of auspicatory performances at Werribee: of comprehending the birds (*conspicere*). Between the performances of *servare* and *conspicere*, there is a pause, in which Clive debriefs the team on their achievements thus far.

Silentium, you'll recall is not mere silence but focused ritual decorum and the absence of fault or error. In her lead role, Jutte's hour-long performance of edging the birds slowly, surely, towards the Net-templum was particularly without fault. As Clive says, "she just has that way of walking like this, just gradually dribbles things forward rather than flushes them and makes them fly." In what follows, he also suggests a difference between the non-auspicatory status of those birds acting outside of the templum and those brought within the templum by Jutte:

Most of the Stints disappeared off out to sea. They've gone somewhere out near Kirk Point, I don't know where they've gone. But enough of the Stints stayed in here and all the Sharpies all stayed in here and Jutte gradually herded them round and picked up a few more and a few more, 20, 25, 30 more, 35 more and then finally at the end Jutte got two good movement of birds into the catching area.⁶⁵

⁶³ Barbara Campbell, "Victorian Wader Study Group at Werribee Sewage Farm, 27–30 December 2011," *VWSG Bulletin*, no. 35 (2012): 85.

⁶⁴ Ibid.

⁶⁵ Ibid.



Figure 29. VWSG team members banding birds, measuring biometrics (age, wing moult, weight, bill, head and bill, and wing lengths) and recording data in the field at Borrow Pit lagoon, Werribee, 2014. Photo: Barbara Campbell.

And at the end of the debrief, before organizing the team into processing roles, Clive acknowledges the effect of all the auspicating actants performing in *silentium*: "[a]s far as I can judge, it's 50 or 60 Stints, it's about 30 Sharpies, it's seven Redcapped Plovers, an Oyster Catcher. So a good mixture. Really well done everyone. Thank you very much. That's a much better catch then we could have expected but it's because everyone did the right thing in the right way this morning."⁶⁶

There is more than an echo here of Linderski's sense of augural achievement on behalf of Romulus. But achievement is always attended by its hubristic shadow.

⁶⁶ Ibid.

Remember Linderski? "[W]e are well aware of how many things could have gone wrong." Clive's congratulatory tone is similarly inflected by contingency. Recall the warning sound from Actor-Network Theory: "that though some things are fairly consistent in the way in which they act, at least in principle they could have acted otherwise, and then the whole performance might have come unstuck." I've been using transcripts and inscriptions relating to catching performances at Werribee where auspications "went well" according to the intentions of the VWSG but I've read and written reports from other catching events in which no birds have been caught or not in sufficient numbers for data analysis.



Figure 30. VWSG team member Roger Standen holding freshly banded (042-69701) Curlew Sandpiper at Werribee, 2013. Roger also participated in my "Sympathetic Banding Program" intended to run from December 2013 to December 2014 during which time I asked participants to wear a silver band engraved *ex avibus* and record their thoughts in a journal while the birds were in the northern hemisphere. Roger is also seen here freshly banded. Most participants did not like wearing the band nor recording their thoughts while they weren't with the birds in the field. From this data-poor outcome, my own banding program was an experiment only and wasn't further developed. Photo: Barbara Campbell.

⁶⁷ Linderski, Roman Questions II: Selected Papers, Bd. 44, 19.

⁶⁸ Law and Singleton, "Performing Technology's Stories: On Social Constructivism, Performance, and Performativity," 771.

Whether success or its opposite is achieved during any particular auspication at Werribee, it remains as shorebird *templum*; that is, as time-space-event, ritually inscribed and reinscribed by the co-agential forces that gather there each December.

If we accept that all this while, the VWSG auspicants at Werribee have been in the second, liminal, state of Van Gennep's "rites of passage," held there by all we've come to understand of "Werribee" as time-space-event, then at the end of the augury, the auspicants will enter the third and final stage of the rite: "reaggregation, when they are ritually returned to secular or mundane life—either at a higher status level or in an altered state of consciousness or social being." And if Linderski is also right, the auspices don't depart the body entirely, they are something one *has*, lying latent, waiting to be activated... again. 70

On the morning of the third day of Werribee, 2013:

The birds are just not interested. Not even Eric's twinkling down the centre of the pond towards the island can corral the birds into position. They simply rise up and head towards the sea.

Finally, reluctantly, Clive declares the operation nonviable. In single file the gang wades out to the island to collect the objects of our thwarted efforts. Piece by piece of anomalous matter: cast iron, woven nylon, coated wire, and shaped wood comes back and is carefully layered into the trailer.

Looking around, it's hard to feel bad about the day: the blue sky reflected between islets of green algae; the You Yangs drawing waves on the horizon, echoed by the white domes of Avalon airport to the left, and overhead a raptor waiting for his chance. We leave the scene.⁷¹

Alio die.

⁶⁹ Turner, "Frame, Flow and Reflection: Ritual and Drama as Public Liminality," 467.

⁷⁰ Linderski, Roman Questions II: Selected Papers, Bd. 44, 11.

⁷¹ Campbell, "Victorian Wader Study Group at Werribee Sewage Farm, 27–30 December 2013," 72.

Conclusion

I let myself be led by fluctuations. I follow the relations and will soon regroup them, just as language regroups them via prepositions.¹

Before this doctorate could be named as such, my research began with an internal agitation that emerged as an impulse and eventually became a fully formed question: how do birds lead humans to perform other versions of humanness? Allowing myself to be led by a group of species other than the human held the key to pursuing this research question.

During the course of this doctoral research, migratory shorebirds at staging sites on the East Asian-Australasian Flyway have led me into fields both of the environmental and intellectual kind where I'd not previously ventured. Paraphrasing Michel Serres in the epigraph above, I let myself be led by the birds' fluctuations. As a Performance artist, that is, in my case, a solo maker of culturally marked, large P Performances, this approach to both creative and written work has become my ongoing script directive, assuming the continuous present tense form: "what are the birds directing me to do now?" Taking on such a directive, I soon found that the birds themselves were leading me out of those culturally marked Performance arenas and into social or unmarked, small *p* performance arenas, populated by performers of human and avian species. In these places, as I show in Chapter 3, "Interlocutors," all the seen and unseen organisms are engaged in processes of becoming-with every bit as significant as a Performer undergoes before an audience. In such performance arenas, humans—sometimes categorised as *Homo faber*—are makers of the self in relation to their always-changing environment. However, they are but one member of a larger species community also engaged in processes of self-environment² making and so are better thought of as sharing the wider nomenclature *Animalia faber*. Here in the small *p*

¹ Michel Serres in Serres and Latour, *Conversations on Science, Culture, and Time,* 102.

² My use of the hyphen here and elsewhere in this dissertation is important (as it was for Latour in the trialectic "Actor-Network") in reflecting the dynamic tension of coproduction.

performance arenas, I observed that all these other performers (human and avian) were also being led by fluctuations.

My doctoral design of following the birds—both conceptually and physically—into more-than-human performance arenas was supported by Serres's cited interlocutor Bruno Latour when I came to exercise some of the concepts and methodologies of Actor-Network Theory (ANT). Latour had advised that anyone wanting to trace social connections in new and interesting ways should "follow the actors themselves." I would soon learn that what he and ANT meant by "actor" was not necessarily an entity of the theatre (though it could be) nor, as was particularly useful to me, limited to human form only. Actant rather than actor is the term sometimes used by ANT proponents to press this point and one I also adopt to show how in the contact zones of shorebird-human interactions the birds have equal potential for agency in any relational assemblage. In this dissertation I have used "actant" to bridge the divide (that is, the old Cartesian cut) between human and animal and also between Performer and performer in those places where interspecies performances are made.

The first testing ground for applying some of the thinking of ANT to ideas of interspecies performance came from a human-bird time-space-event that I was simultaneously a long way from and very close to: the sound of radio "actuality" of environmental scientist Richard Kingsford performing his 2008 waterbird survey from a light aircraft somewhere in Australian skies.

Like many so-called cultural Performances, Kingsford's survey is iterative: it happens at the same time each year, tracing the same wetlands from the air according to the same pre-established survey bands abstractly laid across the landscape below. As I reformulate it here, Kingsford's own directive script for each of these annual performances is: "what will the birds show me now about water quality?" The birds, which he admits as having charismatic power, have enrolled him and others, including myself, who are attracted to his project, in an iterative, interspecies performance where he is one actant performing in a networked

³ Latour, Reassembling the Social: An Introduction to Actor-Network-Theory, 61-62.

relation with other actants. As I detail in Chapter 1, "Surveyor," these other actants are not limited to the organismal kind of birds and humans. In Kingsford's case, they include the airplane, the landscape, weather and light conditions, as well as more prosaic entities such as project budgets, data spreadsheets, and fuel tank capacities.

By mapping out the waterbird survey as interagential actor-network, it's no longer strictly possible to refer to this event in the possessive case as "Kingsford's survey." In other contexts (for instance, in academia as its own actor-network), it may be legitimate and indeed necessary to ascribe to Kingsford the role of progenitor-cum-author of *his* surveys, but not when describing the time-space-event of the waterbird survey *as* performance. As my interview with Kingsford reinforces, Kingsford himself has no trouble enumerating all the differently interacting actants of the survey performances, additionally revealing through the intensity of his verbal expression, the contingent nature of these performances (a contingency ever present in live Performances too) where seemingly predictable things always hold the potential to act otherwise. By extension, the apostrophe in "artist's studio" might need to be jettisoned when describing how things come into being—that is, are performed—in such designated places.

As Latour and his colleagues also emphasise, the agency of actants within networks is revealed in the translation centres where the actants are "made to write." This is crucial in understanding how it was that I felt I was not just aural witness to, but also active participant in, the interagential performance of the survey involving Kingsford. Just as the waterbirds as actants were made to write on Kingsford's tape recorder and datasheets, so too were Kingsford and the survey airplane as other actants, made to write via the medium of radio. All the actants so inscribed were gathered up by the translation centre of the ABC and brought into my home via the agency of the radio medium. On that morning I had taken up the role of surrogate Surveyor. The translation centre that is the ABC had altered the small *p* performance carried out by Kingsford on his waterbird survey to a large *P* Performance where audiences were invited into the becoming-with arena. I was not only aural witness to an event taking place in a remote time-space but was now

placed inside another time-space-event (the radio package) where I could take on other roles. That morning I was the Listener and the Surveyor but I was only one isolated radio listener of an imagined community of listeners who may have been taking up this or indeed other roles (of bird, or of plane, perhaps).

Here also was the first inkling of how birds as agents can distribute performance as Performance. Birds, humans, geographies, instruments, technologies, and timeframes forming a relational assemblage (small *p* performance) can be transported and thereby translated into other arenas in which the audience (or viewer or listener) knows him/herself to be playing a role in the relational assemblage of a large *P* Performance. The resource-rich translation centre of the ABC had made that distribution possible. Glimpsing the complexity and scope of my exercise involving the birds and all the actants related to them, it became clear to me that if I were to translate performance into Performance by way of the birds I would need to do a lot of empirical work in the performance arenas where birds were actively shaping those arenas and drawing other actants in. In other words, I needed a deeper, first-hand understanding of how human-bird cultures were coproduced.

As with the waterbirds around the wetlands surveyed by Kingsford, migratory shorebirds have worked over millennia to define performance arenas around the coasts of Australia and other staging sites of the East Asian-Australasian Flyway. Some of these staging sites, like the Broome Bird Observatory at Roebuck Bay (visited in Chapters 2 and 3), are accessible to humans by minimal ingress along roadways and waterways. At other places, such as the Werribee Sewage Farm (as described in Chapter 4), human and shorebird affairs overlap to form intersecting performance arenas: human waste treatment plant; bird habitat; and shorebird research facility.

Prior to physically entering each unfamiliar shorebird staging site, I accumulated a growing cache of interdisciplinary tools for fieldwork research. Performance Studies—itself borrowing from Anthropology—is a discipline that offers ways of understanding both performance and Performance and it equipped me with the principles of ethnography according to the assumed role of participant-observer of

"other human cultures." Therefore, in preparing for my 2012 trip to the Broome Bird Observatory, I rehearsed the roles of Ethnographer and Participant-observer. In the field, however, these roles were often subsumed by the role shared by other actants: that of Visitor. So "Visitors" became my title for Chapter 2.

Acknowledging the plural form "Visitors" in the title highlights several discoveries made at the Broome Bird Observatory. Firstly, it refers to the multiple ways all humans and shorebirds are visitors to that site where interspecies cultures are always temporarily constructed and dismantled and therefore always contingent. Secondly, it reflects my own uncertainty, as sample visitor, about how to behave (play a role) in a culture in which I am openly invited by certain humans acting on behalf of certain birds. And thirdly, as James Clifford and other ethnographers/historians have reiterated, visitors, as a collective noun representing differentiated single visitors, is a reminder to myself, to potential readers of this thesis, and to viewers of my exhibition that any empirical method is subject to the partiality of the mobile but singular viewpoint.

As with a visitor who finds temporary comfort in a friend's home, what helped me land momentarily but also beneficially in the field at Roebuck Bay were the occasions when time-space became time-space-event; that is, when interspecies performances came into being as moments of simultaneous participation and observation for both shorebirds and humans. These crepuscular performances had been given the title "Migration Watch" by the Observatory wardens. As professional observers, the staff had acquired knowledge of the waders' annual phenological performances, when Zugunruhe (migratory restlessness) would call the birds into freshly plumed, fuel-fattened flocks. Each afternoon as the birds readied themselves for long-haul departure from the littoral zone close to the Observatory, we humans were likewise called to participate as active observers in the shorebirds' performance. "Spectactor" (the neologism I borrow from Augusto Boal) is the term I came to use to reflect this role of the co-Performing observer. Spectactors were likewise present at Werribee during the Victorian Wader Studies Group's (VWSG) annual catching and banding program there (in Chapter 4, "Romans").

I found with each successive evening iteration of Migration Watch at Broome and with each successive iteration of Shorebird Catch at Werribee that it became harder and harder to characterise these events as performance rather than as the fully capitalised Performance. The shorebirds and wardens had worked interagentially to prepare the site of Roebuck Bay as an event. The shorebirds and VWSG went further (as I reveal in comparing the effectiveness of their actions with the rituals of Roman augury): reinscribing, through intricate behaviours, the site of Werribee Sewage Farm as a time-space-event of environmental and global significance. Each time-space-event invested its respective human spectactors with special responsibilities, whether it be waving the waders goodbye from Roebuck Bay, or monitoring species survival at Werribee. So much of the work of performance was being done in these places that it suggested to me that only the lightest touch back in the translation centres of studio and gallery would be required to make that final transition to Performance register for another timeand-space-shifted spectactorship, this one gathered in the time-space-event of an exhibition.

As with Kingsford and his recordings of waterbird data from the field, for me, what made the transition from performance to Performance possible, were the inscriptions that I'd gathered through my own fieldwork, in which both humans and shorebirds had been, in Latour's terms, "made to write."

In a single piece of "amateur-grade" video footage, just 33 seconds long, shot during the passing time-space-event of Migration Watch at Roebuck Bay, birds can be seen to fly across the sky-frame (or *templum*, as the Romans would have called it) and humans can be heard to respond on the audio track. The footage plays an agential role in distributing performance to the three components of the doctoral work *Well there you are* (2015). Firstly, Gordon's six individual speech utterances from the audio track are heard coming from movement-triggered speakers. Secondly each utterance on the audio track corresponds to and prescribes a section of video track which, in unedited form, would otherwise describe the unbroken flight path of the birds. These edited sections, broken down as frame-by-frame drawn analyses are translated onto large paper stages (other *templa*) that

hang opposite the corresponding vocal response from Gordon. Between translated audio track emanating from one wall and translated video track hanging from opposite wall, the viewer performs as spectactor activating the utterances according to his/her own movement through the gallery environment. Thirdly, the video component is a layered flocking Performance of me following the flock of Godwits across the paper *templa* during the making of the drawings⁴.

What is evidenced through all these components resulting from the fieldwork is how the birds' and humans' coagential performances inscribed on the initial video footage inhere thereafter in further inscriptions. They inhere in the wall drawings; they inhere in the video of my drawing performance; and they inhere in the response space of the gallery installation through the activation of visiting spectactors. In all these ways (and potentially many more) birds can distribute their performance by way of humans and in all these ways I have distributed Performance by way of migratory shorebirds on the East Asian-Australasian Flyway.

I would not want to suggest in either the written dissertation or creative works of this doctorate that the passage from performance to Performance is some kind of secular apotheosis. The fieldwork I was privileged to conduct allowed me in the role of researcher to circulate within actor-networks of diverse interspecies kinds and, as artist, to translate these findings into the actor-network of the gallery exhibition. I am but one of the shorebirds' willing human co-agents. Other humans, singly and collectively, at Roebuck Bay, at Werribee, at so many other staging sites along the Flyway are performing their own interagential becomings. And away from the contact zones, the shorebirds—singly, collectively, and across evolutionary time—are performing the long duration of species migration. They commit to this self-directed endurance performance every year. Unfortunately for them and for us, we have a role in their performances' annual and long-term success.

n in the single-channel video Well There You Are (2014) an evernt of y

⁴ Seen in the single-channel video *Well There You Are* (2014), an exerpt of which can be viewed at https://vimeo.com/129389835. See also Figs. 23-24.

Bibliography

- Agamben, Giorgio. *Homo Sacer: Sovereign Power and Bare Life*. Stanford, California: Stanford University Press, 1998.
- ——. *The Open: Man and Animal [L'aperto: L'uomo e l'animale,* 2002]. Translated by Kevin Attell. Stanford, California: Stanford University Press, 2004.
- Aloi, Giovanni. Art & Animals. London: I.B. Taurus, 2012.
- ———. "Deconstructing the Animal in Search of the Real." *Anthrozoös* 25, no. sup1 (2012): s73-s90.
- Anderson, Benedict. *Imagined Communities: Reflections on the Origin and Spread of Nationalism.* London: Verso, 1983.
- Anderson, Laurie. "Say Hello." In *United States Live*: Warner Bros, 1984.
- Austin, J. L. How to Do Things with Words. Oxford: Clarendon Press, 1975 (1955).
- Australian Government Department of the Environment. "Species Profile and Threats Database (SPRAT)." Australian Government, accessed 19 May 2016, http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.
- Baker, Steve. *The Postmodern Animal*. London: Reaktion, 2000.
- Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning.* Durham: Duke University Press, 2006.
- ———. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs: Journal of Women in Culture and Society* 28, no. 3 (2003): 801-831.
- Barthes, Roland. *Camera Lucida: Reflections on Photography*. Translated by Richard Howard. London: Vintage, 1993 (1981).
- Battley, Phil F. "Consistent Annual Schedules in a Migratory Shorebird." *Biology Letters* 2, no. 4 (2006): 517-520.
- ———. "The Northward Migration of Arctic Waders in New Zealand: Departure Behaviour, Timing and Possible Migration Routes of Red Knots and Bar-Tailed Godwits from Farewell Spit, North-West Nelson." *Emu* 97, no. 2 (1997): 108-120.
- Baudry, Jean-Louis, and Alan Williams [Trans]. "Ideological Effects of the Basic Cinematographic Apparatus." *Film Quarterly* 28, no. 2 (1974): 39-47.

- Bergson, Henri. *The Creative Mind: An Introduction to Metaphysics [La Pensée et le mouvant*, 1934]. Translated by Mabelle L. Andison. New York: Wisdom Library, 1946.
- Birding-Aus. "Broome Bird Observatory Courses." Accessed 21 July 2015, http://bioacoustics.cse.unsw.edu.au/birding-aus/2004-02/msg00242.html.
- Birdlife Australia. *Shorebirds Identification Booklet*. Canberra: Commonwealth of Australia, 2012.
- Birkhead, Tim. *The Wisdom of Birds: An Illustrated History of Ornithology*. London: Bloomsbury, 2008.
- Boal, Augusto. Games for Actors and Non-Actors. London: Routledge, 1992.
- Bottoms, Stephen J., and Matthew Goulish. *Small Acts of Repair: Performance, Ecology, and Goat Island*. New York; London: Routledge, 2007.
- Broglio, Ron. *Surface Encounters: Thinking with Animals and Art.* Minneapolis: University of Minnesota Press, 2011.
- Buchanan, Brett. *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze*. Albany: State University of New York Press, 2008.
- Calarco, Matthew. *Zoographies: The Question of the Animal from Heidegger to Derrida*. New York: Columbia University Press, 2008.
- Callon, Michel. "Actor Network Theory." In *International Encyclopedia of the Social & Behavioral Sciences*, edited by Neil J. Baltes and Paul B. Smelser, 62-66. Oxford: Pergamon, 2001.
- ———. "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay." *The Sociological Review Monograph* 32 (1986): 196-233.
- Campbell, Barbara. "Victorian Wader Study Group at Werribee Sewage Farm, 27–30 December 2011." VWSG Bulletin, no. 35 (2012): 84-87.
- ——. "Victorian Wader Study Group at Werribee Sewage Farm, 27–30 December 2013." *VWSG Bulletin*, no. 37 (August 2014): 68-72.
- Campbell, Barbara, and Chris McAuliffe. "The Grimwade Effect." edited by Ian Potter Gallery. Parkville: University of Melbourne, 2003.
- Carlson, Marvin. *Performance: A Critical Introduction*. 2nd ed. New York: Routledge, 2004.

- Castaneda, Quetzil E. "The Invisible Theatre of Ethnography: Performative Principles of Fieldwork." *Anthropological Quarterly* 79, no. 1 (2006): 75-104.
- Catts, Oran, and Ionat Zurr. "Symbiotica." University of Western Australia, accessed 10 February 2016, http://www.symbiotica.uwa.edu.au/.
- Chaudhuri, Una, and Holly Hughes. *Animal Acts: Performing Species Today*. Ann Arbor: University of Michigan Press, 2014.
- Chomsky, Noam. Aspects of the Theory of Syntax. Cambridge: MIT Press, 1969.
- Clemens, Robert S., Ashley Herrod, and Michael A. Weston. "Lines in the Mud; Revisiting the Boundaries of Important Shorebird Areas." *Journal for Nature Conservation* 22, no. 1 (2014): 59-67.
- Clifford, James. "Introduction: Partial Truths." In *Writing Culture: The Poetics and Politics of Ethnography*, edited by James Clifford and George E. Marcus. Berkeley: University of California Press, 1986.
- ———. The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art. Cambridge, Mass: Harvard University Press, 1988.
- Clifford, James, and George E. Marcus, eds. *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley: University of California Press, 1986.
- Coles, Alex, and James Clifford. "An Ethnographer in the Field: James Clifford Interview." In *Site-Specificity: The Ethnographic Turn*, edited by Alex Coles. London: Black Dog Pub., 2000.
- Cottingham, John. "'A Brute to the Brutes?': Descartes' Treatment of Animals." *Philosophy* 53 (1978): 551-559.
- Crawford, Cassandra S. "Actor Network Theory." In *Encyclopedia of Social Theory*, edited by George Ritzer Thousand Oaks, CA: SAGE Publications, Inc., http://dx.doi.org/10.4135/9781412952552.
- Cull, Laura. "From *Homo Performans* to Interspecies Collaboration: Expanding the Concept of Performance to Include Animals." In *Performing Animality:*Animals in Performance Practices, edited by Jennifer Parker-Starbuck and Lourdes Orozco García. Basingstoke: Palgrave Macmillan, 2015.
- Derrida, Jacques. *The Animal That Therefore I Am*. Translated by David Wills. New York: Fordham University Press, 2008.
- Descartes, Rene. *Descartes: Philosophical Letters*. Translated and edited by Anthony Kenny. London: Oxford University Press, 1970.
- Dewsbury, John D. "Performativity and the Event: Enacting a Philosophy of Difference." *Environment and Planning D: Society and Space* 18, no. 4 (2000): 473-496.

- Eagleton, Terry. "Homo Loquax: Talking Bodies." Globalizations 3, no. 1 (2006): 1-4.
- Elliott, Jackie. *Ennius and the Architecture of the Annales*. Cambridge University Press, 2013.
- Emerson, Robert M., Rachel I. Fretz, and Linda L. Shaw. *Writing Ethnographic Fieldnotes*. Chicago: The University of Chicago Press, 2011.
- Forest, Berrice S. "Ageing of the Red-Necked Stint." *VWSG Bulletin*, no. 4 (July 1981): 12-15.
- Geertz, Clifford. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books, 1973.
- Gibson, James J. *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin, 1979.
- Goffman, Erving. *Frame Analysis: An Essay on the Organization of Experience*. Cambridge, MA: Harvard University Press, 1974.
- ——. The Presentation of Self in Everyday Life. Harmondsworth: Penguin, 1971.
- Green, Steven J. "Malevolent Gods and Promethean Birds: Contesting Augury in Augustus's Rome." *Transactions of the American Philological Association* 139, no. 1 (2009): 147-167.
- Grosz, Elizabeth. *Becoming Undone: Darwinian Reflections on Life, Politics, and Art.* Durham, NC: Duke University Press, 2011.
- Haraway, Donna Jeanne. *When Species Meet*. Minneapolis: University of Minnesota Press, 2008.
- Hastrup, Kirsten. "Writing Ethnography: State of the Art." In *Anthropology and Autobiography*, edited by Judith Okely and Helen Callaway. London: Routledge, 1992.
- Herder, Johann Gottfried. *Philosophical Writings*. Translated by Michael N. Forster. Cambridge: Cambridge University Press, 2002.
- ——. "Treatise on the Origin of Language (Excerpts)." (1772): n.p., https://www.marxists.org/archive/herder/1772/origins-language.htm.
- Hollands, David, and Clive Minton. *Waders: The Shorebirds of Australia*. Melbourne: Bloomings Books, 2012.
- Ingold, Tim. *Being Alive: Essays on Movement, Knowledge and Description*. New York: Routledge, 2011.
- ———. *What Is an Animal?* Boston: Unwin Hyman, 1988.

- Jeremijenko, Natalie. "Projects." Accessed 17 July 2016, http://www.environmentalhealthclinic.net/projects/.
- Kalof, Linda, and Amy J. Fitzgerald. *The Animals Reader: The Essential Classic and Contemporary Writings*. Oxford: Berg, 2007.
- Kingsford, Richard. "Eastern Australian Waterbird Survey." UNSW Centre for Ecosystem Science, accessed 4 September 2014, https://www.ecosystem.unsw.edu.au/content/rivers-and-wetlands/waterbirds/eastern-australian-waterbird-survey.
- Kirby, Michael. "On Acting and Not-Acting." *TDR/The Drama Review* 16, no. 1 (1972): 3-15.
- Kirksey, Eben S. *The Multispecies Salon*. Durham and London: Duke University Press, 2014.
- Kirksey, Eben S. and Stefan Helmreich. "The Emergence of Multispecies Ethnography." *Cultural Anthropology* 25, no. 4 (2010): 545-576.
- Krauss, Rosalind E. "The Im/Pulse to See." In *Vision and Visuality*, edited by Hal Foster. Discussions in Contemporary Culture, 50-75. Seattle, Wash: Bay Press, 1988.
- ———. *The Optical Unconscious*. Cambridge, MA: MIT Press, 1993.
- Kurtz, Steven J., Lucia Sommer, and Critical Art Ensemble. *Disturbances*. London: Four Corners Books, 2012.
- Latour, Bruno. "On Recalling ANT." In *Actor Network Theory and After*, edited by John Law and John Hassard. Oxford: Blackwell Publishers, 1999.
- ———. *Reassembling the Social: An Introduction to Actor-Network-Theory*. New York; Oxford: Oxford University Press, 2005.
- ———. *Science in Action: How to Follow Scientists and Engineers through Society.* Cambridge, MA: Harvard University Press, 1987.
- Law, John. "After ANT: Complexity, Naming and Topology." In *Actor Network Theory and After*, edited by John Law and John Hassard. Oxford: Blackwell Publishers, 1999.
- ———. "Technology and Heterogeneous Engineering: The Case of Portuguese Expansion." In *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology: Anniversary Edition*, edited by Wiebe E. Bijker, Thomas P. Huges, and Trevor Pinch, 105-127. Cambridge, MA: MIT Press, 2012.
- Law, John, and Vicky Singleton. "Performing Technology's Stories: On Social Constructivism, Performance, and Performativity." *Technology and Culture* 41, no. 4 (2000): 765-775.

- Liebeschuetz, J. H. W. G. *Continuity and Change in Roman Religion*. Oxford: Clarendon Press, 1979.
- Linderski, Jerzy. "The Augural Law." ANRW II 16, no. 3 (1986): 2146-2312.
- ——. *Roman Questions II: Selected Papers*. Vol. Bd. 44, Stuttgart, Germany: Franz Steiner Verlag, 2007.
- Lingis, Alphonso. "Bestiality." In *Animal Others*, edited by H. Peter Steeves. New York: New York University Press, 1999.
- Linnaeus, Carolus. Systema Naturae, Ed. 10, Vol. 1. Salvii, Holmiae. 1758.
- Lloyd, Genevieve. *The Man of Reason: the 'Male' and 'Female' in Western Philosophy*. London: Routledge, 1993.
- Lorimer, Jamie. "Nonhuman Charisma." *Environment and Planning D: Society and Space* 25, no. 5 (2007): 911-932.
- Malinowski, Bronislaw. *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*. Prospect Heights, Illinois: Waveland Press, 1984 (1922).
- ——. *A Diary in the Strict Sense of the Term.* Stanford, CA: Stanford University Press, 1967.
- Marcus, George E. "Contemporary Fieldwork Aesthetics in Art and Anthropology: Experiments in Collaboration and Intervention." *Visual Anthropology* 23, no. 4 (2010): 263-277.
- Margetts, Jayne. *Scientists Undertake World's Largest Water Bird Survey.* Podcast audio. AM 2:33. Last modified 2008, accessed 05 September 2014, http://mpegmedia.abc.net.au/news/audio/am/200811/20081104am08-bird-survey.mp3.
- Marshall, Jonathan. "Dancing the Elemental Body: Butoh and Body Weather: Interviews with Tanaka Min and Yumi Umiumare." *Performance Paradigm*, no. 2 (2006).
- Maxwell, Ian. "Parallel Evolution: Performance Studies at the University of Sydney." *TDR/The Drama Review* 50, no. 1 (2006): 33-45.
- McAuley, Gay. "Not Magic but Work: Rehearsal and the Production of Meaning." *Theatre Research International* 33, no. 03 (2008): 276-288.
- Measham, Fatima. "No Shit." *Meanjin* 73, no. 2 (2014): https://meanjin.com.au/essays/no-shit/.
- Murray, Nicholas J., and Richard A. Fuller. "Protecting Stopover Habitat for Migratory Shorebirds in East Asia." *Journal of Ornithology* 156, no. S1 (2015): 217-225.

- Nichols, Bill, ed. Movies and Methods. Berkeley: University of California Press, 1976.
- Nissinen, Martti. "Prophecy and Omen Divination: Two Sides of the Same Coin." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar Annus, 341-347. Chicago: University of Chicago, 2010.
- Oxford English Dictionary Online. Oxford University Press, 2015. http://www.oed.com.ezproxy1.library.usyd.edu.au/.
- Piersma, Theunis, Petra de Goeij, and Ingrid Tulp. "An Evaluation of Intertidal Feeding Habitats from a Shorebird Perspective: Towards Relevant Comparisons between Temperate and Tropical Mudflats." *Netherlands Journal of Sea Research* 31, no. 4 (1993): 503-512.
- Piersma, Theunis, and Jan A. van Gils. *The Flexible Phenotype: A Body-Centred Integration of Ecology, Physiology, and Behaviour*. Oxford; New York: Oxford University Press, 2011.
- Pratt, Mary Louise. "Fieldwork in Common Places." In *Writing Culture: The Poetics and Politics of Ethnography*, edited by James Clifford and George E. Marcus, 27-50. Berkeley: University of California Press, 1986.
- Puchner, Martin. "Performing the Open: Actors, Animals, Philosophers." *TDR/The Drama Review* 51, no. 1 (Spring 2007): 21-32.
- Ramenofsky, Marilyn, Renée Agatsuma, Melissa Barga, Rebecca Cameron, Jessica Harm, Meta Landys, and Trisha Ramfar. "Migratory Behavior: New Insights from Captive Studies." In *Avian Migration*, edited by Peter Berthold, Eberhard Gwinner and Edith Sonnenschein, 97-111. New York; Berlin: Springer-Verlag, 2003.
- Ramsar. "Ramsar Sites Information Service." Accessed 21 October 2015, https://rsis.ramsar.org/ris/266.
- Rogers, Danny. "A Southern Holiday?" In *Invisible Connections: Why Migrating Shorebirds Need the Yellow Sea*, edited by Jan van de Kam, Danny Rogers, et al. Collingwood, Vic.: CSIRO Publishing, 2010.
- Rogers, Danny I., R. H. Loyn, and Dougal Greer. "Factors Influencing Shorebird Use of Tidal Flats Adjacent to the Western Treatment Plant." In *Arthur Rylah Institute for Environmental Research Technical Report Series, No. 250*. Heidelberg, Victoria: Department of Environment and Primary Industries, 2013.
- Romeo, Luigi. *Ecce Homo! A Lexicon of Man*. Amsterdam: John Benjamins B.V., 1979.
- Rutherford, Danilyn. "Kinky Empiricism." In *Writing Culture and the Life of Anthropology*, edited by Orin Starn. Durham: Duke University Press, 2015.

- Saussure, Ferdinand de. *Course in General Linguistics*. Translated by Wade Baskin. New York: Philosophical Library, 1959 (1916).
- Schechner, Richard. *Performance Studies: An Introduction*. 2nd ed. New York: Routledge, 2006 (2002).
- ——. Performance Theory. London and New York: Routledge, 2003 (1988).
- Schrödinger, Erwin. *What Is Life?* Cambridge: Cambridge University Press, 1946.
- Searle, John R. "How Performatives Work." *Linguistics and Philosophy: An International Journal* 12, no. 5 (1989): 535-558.
- Sebeok, Thomas A. "Animal' in Biological and Semiotic Perspective." In *What Is an Animal?*, edited by Tim Ingold. Boston: Unwin Hyman, 1988.
- ——. "Biosemiotics: Its Roots, Proliferation, and Prospects." *Semiotica* 134, no. 1-4 (2001): 61-78.
- ——. Signs: An Introduction to Semiotics. Toronto; Buffalo: University of Toronto Press, 1994.
- Serres, Michel. *The Natural Contract*. Translated by Elizabeth MacArthur and William Paulson. Ann Arbor: University of Michigan Press, 1995.
- ———. *Rome: The Book of Foundations*. Translated by Felicia McCarren. Stanford, CA: Stanford University Press, 1991.
- Serres, Michel, and Bruno Latour. *Conversations on Science, Culture, and Time*. Ann Arbor: University of Michigan Press, 1995.
- Standen, Roger. *The Father of Wader Studies: Tales of C.D.T. Minton*. VWSG, 2015. http://www.vwsg.org.au/Mintontales.pdf.
- Starn, Orin, ed. *Writing Culture and the Life of Anthropology*. Durham: Duke University Press, 2015.
- Stearn, W. T. "The Background of Linnaeus's Contributions to the Nomenclature and Methods of Systematic Biology." *Systematic Zoology* 8, no. 1 (1959): 4-22.
- Taussig, Michael. "Excelente Zona Social." In *Writing Culture and the Life of Anthropology*, edited by Orin Starn. Durham: Duke University Press, 2015.
- Taylor, Paige. "Bishop Fears 'Catastrophic' Result of Colin Barnett's Remote Closures." *The Australian*, 18 November 2014.
- Terrill, Scott B., and Kenneth P. Able. "Bird Migration Terminology." *The Auk* 105, no. 1 (1988): 205-206.

- Thrift, Nigel. "Performance and Performativity: A Geography of Unknown Lands." In *A Companion to Cultural Geography*, edited by James S. Duncan, Nuala Christina Johnson, and Richard H. Schein, 121-136. Malden, MA: Blackwell Pub., 2004.
- Torres, Pat Mamanyjun. "Nila.Ngany—Possessing/Belonging to Knowledge: Indigenous Knowledge Systems in Yawuru Aboriginal Australia." In Indigenous Peoples' Wisdom and Power: Affirming Our Knowledge through Narratives, edited by Nomalungelo I. Goduka and Julian Kunnie. Aldershot: Ashgate, 2006.
- Turner, Victor. "Frame, Flow and Reflection: Ritual and Drama as Public Liminality." *Japanese Journal of Religious Studies* 6, no. 4 (1979): 465-499.
- Turner, Victor W. *The Anthropology of Performance*. New York: PAJ Publications, 1988.
- Uexküll, Jakob von. "An Introduction to *Umwelt.*" *Semiotica* 2001, no. 134 (2001): 107-110.
- ———. "The Theory of Meaning." *Semiotica* 42, no. 1 (1982): 25-82.
- Warmington, E. H. Remains of Old Latin. IV vols. Vol. I: Loeb Classical Library, 1935.
- Whatmore, Sarah. "Materialist Returns: Practising Cultural Geography in and for a More-Than-Human World." *Cultural Geographies* 13, no. 4 (2006): 600-609.
- Woodley, Keith. *Godwits: Long-Haul Champions*. Rosedale, NZ: Penguin, 2009.
- Wormworth, Janice, and Cagan H Sekercioglu. *Winged Sentinels: Birds and Climate Change*. New York: Cambridge University Press, 2011.

Appendix 1: Migratory Shorebirds on the East-Asian Australasian Flyway¹

Common name	Scientific name	Breeding Area ²	Threat Status ³
Greater Sand Plover	Charadrius leschenaultii	Mongolia	endangered
Lesser Sand Plover	Charadrius mongolus	western China to far- eastern Siberia	endangered
Oriental Plover	Charadrius veredus	northern China, Mongolia	
Double-banded Plover	Charadrius bicinctus	New Zealand south island	
Pacific Golden Plover	Pluvialis fulva	eastern Siberia, Alaska	
Grey Plover	Pluvialis squatarola	eastern Siberia, Alaska	
Pectoral Sandpiper	Calidris melanotos	northern Siberia	
Sharp-tailed Sandpiper	Calidris acuminata	northern Siberia	
Red-necked Stint	Calidris ruficollis	far-eastern Siberia to western Alaska	
Long-toed Stint	Calidris subminuta	western, central, and eastern Siberia	
Curlew Sandpiper	Calidris ferruginea	northern Siberia	critically endangered
Broad-billed Sandpiper	Limicola falcinellus	northern Siberia (from 90°- 160° E)	
Ruddy Turnstone	Arenaria interpres	northern Siberia	
Sanderling	Calidris alba	eastern Siberia and islands north	
Red Knot	Calidris canutus	Siberia	endangered
Great Knot	Calidris tenuirostris	eastern Siberia	critically endangered
Wood Sandpiper	Tringa glareola		

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¹ Birds are listed here in the order used by Birdlife Australia, *Shorebirds Identification Booklet* (Canberra: Commonwealth of Australia, 2012). This booklet was published to aid identification of resident and migratory shorebirds seen in Australia and is used by citizens scientists participating in the conservation project Shorebirds 2020 managed by Birdlife Australia. The resident shorebirds have been omitted from this appendix.

² David Hollands and Clive Minton, *Waders: The Shorebirds of Australia* (Melbourne: Bloomings Books, 2012), 17-29. The authors base their information on recoveries and sightings of birds banded and/or flagged in Australia by the Australian Wader Studies Group (AWSG) and more recently from data retrieved from geolocators. They also note significant staging sites along the flyway for each species. A blank entry in the table means insufficient data retrieval based on AWSG findings. In contrast, SPRAT (see Note 3) lists breeding distribution based on global populations.

³ Australian Government Department of the Environment, "Species Profile and Threats Database (SPRAT)," Australian Government, http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl. Threat levels used in SPRAT are: Extinct, Critically Endangered, Endangered, and Vulnerable.

Common Sandpiper	Actitis hypoleucos	across whole Palearctic	
Marsh Sandpiper	Tringa stagnatilis	across the mid-north of the Palearctic	
Common Greenshank	Tringa nebularia	across the mid-north of the Palearctic	
Common Redshank	Tringa totanus		
Terek Sandpiper	Xenus cinereus	eastern Siberia	
Grey-tailed Tattler	Tringa brevipes	eastern Siberia and Kamchatka	
Wandering Tattler	Tringa incana		
Eastern Curlew	Numenius madagascariensis	northeast China, far-eastern Russia, Kamchatka	critically endangered
Whimbrel	Numenius phaeopus	eastern Siberia, Alaska	
Little Curlew	Numenius minutus	north-central and northeast Siberia	
Asian Dowitcher	Limnodromus semipalmatus	central and eastern Siberia, Mongolia, northeast China	
Bar-tailed Godwit	Limosa lapponica (spp menzbierri)	northern central Siberia	critically endangered
Bar-tailed Godwit	Limosa lapponica (spp baueri)	Alaska	vulnerable
Black-tailed Godwit	Limosa limosa	eastern Siberia	
Latham's Snipe	Gallinago hardwickii	Japan and nearby islands	
Swinhoe's Snipe	Gallinago megala	central Siberia	
Oriental Pratincole	Glareola maldivarum		

Catalogue of Work Presented for Examination

Exhibition title:

Ex avibus: well there you are

You've got a rippa (drawing 2), 2014 charcoal on Stonehenge, 290 x 183 cm

There you are, you won't get much better than that (drawing 3), 2014 charcoal on Stonehenge, 290×183 cm

Wonderful (drawing 4), 2014 charcoal on Stonehenge, 290 x 183 cm

Well there you are (drawing 5), 2014 charcoal on Stonehenge, 290 x 183 cm

Well how about that (drawing 6), 2014 charcoal on Stonehenge, 290×183 cm

Well there you are, 2015
responsive sound installation
featuring the voice of Gordon Ramsay at Roebuck Bay,
Western Australia, 6 April 2012
Arduino programming and design by Sam Cole
sound file editing by Gary Warner

Well there you are 2015
video, 95 mins
video editing by Gary Warner
Well there you are (excerpt) at: https://vimeo.com/129389835