

SEX

Abstracts

Plenaries

Andy Butterworth, 'Dressed in a terminological coat'

Breeding, mating, rearing, stud, propagation, replication, procreation, crossing, crossbreeding, joining, merging, serving, servicing, tying, fertilising, interbreeding, coupling, matching, copulation, pure-breeding. For many animals, especially mammals, the act is fundamentally the same as in humans, but we use a different language in the farming and 'breeding' world, and focus on the outputs and outcomes and not on the act. We almost ignore the act itself – in the 'animal world', we dress descriptions in a technical and terminological coat, which refocuses on the biological and productively economic. We almost bypass the emotional, physical, 'personal' ('animal personal') and intimate nature of the act. What does this tell us about how we see animals?

Susan Richardson, 'Words the Turtle Taught Me'

Stella Sandford, 'Human, Animal, Plant: The Invention of Sex Difference in Natural History'

Karl Steel, 'Crawling Matter: Spontaneous Generation from the Ancients to the Moderns'

Normative models of reproduction tend to hold that like generates like: horses give birth to horses, dogs to dogs, humans to humans, in a process that generates both the similarity and the minimal difference necessary for a lineage. Spontaneous Generation, by contrast, produces life not from parentage, but from disorder: flies from rotting flesh, eels from horse's hair, and so on. My talk will explore this discredited natural science as an opportunity to imagine a strange vitality, without spirit, genealogy, or reproduction. Spontaneous generation challenges God's creative monopoly, divisions between agent and object, spirit and matter, father and mother, and information and form.

Panel Papers

Julien Dugnoille, 'Animal Desires: Revitalising socio-biological and evolutionary theories on animal sexualities with accounts of nonhuman animals seeking consortship for pleasure'

The recognition of non-normative individual desires and their pursuit beyond the human world is of great interest to the general public. However, for decades, biologists, anthropologists and psychologists have suppressed inconvenient evidence of homosexual behaviour among the human and nonhuman animals they observed. We argue that sexual behaviours in nonhuman animals should not only be answered in terms of socio-biological and evolutionary benefits for a species, but also by looking at the hedonistic benefit individual animals derive from engaging in non-normative forms of sexual consortship. While it is widely accepted that human animals engage in non-reproductive sex for the pursuit of individual pleasure and/or as a result of intersubjective attraction with another being, regardless of gender, sex, age, ethnicity, this is hardly ever explored in the case of nonhuman sexuality, let alone in terms of a deliberate choice for same-sex conspecifics. We argue that there is scope to revitalise these evolutionary and socio-biological theories with a hedonistic approach to animal sexuality whereby sex encounters are motivated by intentional individual desires for specific kinds of consortship. Our understanding of sexuality is polymorphous and plural. Building on Dugnoille (2005) and Mc Loughlin (2015)'s track-record of theorizing and publishing on 'desire' and queer animals, we contend that desire implies autonomy of action, agency to respond as well as to initiate, intentionality to choose, emotionality as a guiding force and contributes to an overall recognition of individuality and personhood. We argue that homosexual encounters among nonhuman animals are, as is the case among human animals, not only either dysfunctional or functional, but also pleasure-seeking pursuits of a desiring nonhuman subject.

Catherine Duxbury, 'Of Monkeys, Men and Menstruation: The Scientific Explanation of Periods in Mid-Twentieth Century Britain'

At the Fourth Annual Addison Lecture, at Guy's Hospital on July 13, 1950, Dr George Corner, embryologist and keen investigator of the menstrual cycle, advocated the importance of experiments on monkeys in order to explore the biological processes of menstruation in women. He declared 'the study of other menstruating animals has aided and stimulated investigation of the human cycle. The search for a full explanation of [...] menstruation calls for continual experimental work on monkeys'. This conflation of animals, women, and menstruation calls for further

explication and investigation. This paper will focus on British scientific discourses of menstruation, during the period 1949-1972 and trace the historical intersections of animal research on this phenomenon. It will explore how these discourses were applied to epistemological claims made about women's bodies and the resultant power-knowledge effects of this. I argue that animals and women were constructed as similar in bodily characteristics, which at the time facilitated a form of social control over women, strategically rendering them as 'Other' with nonhuman animals. Elizabeth Grosz's (1994) work on the female body alongside Julia Kristeva's (1982) notions of the abject, will be used to analyse these scientific discourses, and its consequences for both animals and women.

Jessica Eisen, 'Beyond the "Private" Farm: Law and Sexual Force in North American Dairying'

Sexuality and reproduction epitomize the "private" within the classical legal distinction between a "public sphere" of legal and political life, and a "private sphere" of family and interpersonal relations. Feminist legal theorists have fought to break down this public/private dualism as both misleading and pernicious—as wrongly disguising the role that law plays in shaping ostensibly "private" spaces and relations, and as concealing the violence and force (including sexual force) that is authorized by and within the "private" sphere. For animals, we have not yet developed an account of the operation of legal force in defining the "private" spheres of animal sexuality, reproduction, and kinship. For agricultural animals, violence and force at the hands of human bearers of private property rights are the defining features of sexual, reproductive and kinship relations. Contrary to pervasive descriptions of animal agriculture as a field characterized by *lack of law*, this presentation will build upon feminist and critical theory in arguing that law fundamentally enables and shapes the use of sexual force in the farming context. Sexual and reproductive control of dairy cattle on contemporary Canadian and American farms will form the central case study.

Greg Garrard, 'Being Zoo: Bestial Humans and Sexual Animals'

Following a period of liberalisation in the 1960s and 1970s, sex with animals is being gradually re-criminalised: Germany has recently banned 'actions alien to the species', while Sweden will enact a law against 'bestiality' in January 2014. Reports of the debates construct zoophiles as sexually 'predatory' (itself a zoomorphic term) and the animals involved as innocent 'victims'. Because in all these countries *cruelty* to animals is already illegal, however, it can only be zoophilic desire as such that is abominable. Moreover, sexual interaction with animals is fundamental to the workings of the intensive meat industry, so the laws have had to

frame the bans carefully specifying, as best they can, erotic intention. The arguments in favour of criminalisation equivocate intriguingly between the older, anthropocentric stigmatisation of 'bestiality' and newer rhetorics of animal welfare and rights. Meanwhile, queer ecocriticism and critical animal studies have re-evaluated animal sexuality, questioning the supposed sexual 'innocence' of animals. 'Being Zoo' will engineer a collision between the new laws against zoophilia and the celebration of queer eroticism among animals, taking in such literary and cinematic representations of zoophilia as Robinson Devor's *Zoo*, Marian Engel's *Bear* and Peter Goldsworthy's *Wish*.

André Krebber, 'Making Species: Sexual Attraction and Animal Agency'

My paper offers a rereading of Darwin's theory of mate choice from *Selection in Relation to Sex* (1871) that evinces sexual attraction as an expression of aesthetic, historical animal agency. With his process of sexual selection, Darwin tried to explain morphological adaptations that he found unaccountable for as improving chances of survival on grounds of natural selection. A particularly famous example are the feathers in the tails of peacocks, that were seen as even detrimental to their survival, since they interfere with their ability to flee from danger. Considering moreover the stark differences in appearance between sexes of many species, Darwin argued that a combination of aesthetic female preferences and male-to-male competition would be responsible for the evolutionary development of such morphological features as the peacock's tail. By tying the evolution of animal forms to the sexual attraction of individuals in this way, I argue, animals exert an influence over the historical development of their species that manifests in their aesthetic features – from the morphology of species to behaviors in courtship. Thereby, sexual attraction stands for an active aesthetic engagement of animals with their world, through which animals if not necessarily instrumentally but nevertheless historically shape their future.

Ina Linge, 'Queering Butterflies: Magnus Hirschfeld, Richard Goldschmidt, and the relationship between sexology and zoology'

Current scholarship about the history of sexology is experiencing a turning point. Until very recently, the dominant assumption was that sexology around 1900 existed as a medical field of knowledge. Recent scholarship, however, has shown that sexologists came from a variety of scientific and non-scientific backgrounds and drew on methodologies and sources from a variety of disciplines, including classical literature, anthropology, and zoology. The relationship between sexology and zoology, in particular, is under-researched, despite the fact that almost every sexologist was either

trained as a zoologist (Alfred Kinsey), drew heavily on zoological research (Magnus Hirschfeld), or made metaphorical use of animal life (Karl Heinrich Ulrichs). In this paper, I want to investigate the scholarly exchange between the German zoologist and geneticist Richard Goldschmidt (1878–1958) and Magnus Hirschfeld (1868–1935), one of the founders of German sexology. Goldschmidt's work on butterfly cross-breeding and his resulting theories about intersexuality were foundational to Hirschfeld's theory of sexual intermediacy. Goldschmidt, in turn, named one of his most influential monographs after Hirschfeld's concept. This paper asks: what are the consequences of this convergence of theories of butterfly sex and human sex variation? What are the wider repercussions of this convergence, beyond the scientific, for example: what are the implications for sexual politics in Weimar Germany?

Zoé Marty, 'Animals as lovers: Bestiality and the Salon in 19th-Century France'

In the nineteenth century, theories of evolution and the growing paradigm of the "femme fatale" considered women's sexuality as a primitive impulse, linked to the wild world. In the context of the official exhibitions of the "Salon", these ideas were attested through different kinds of sculptures and paintings, depicting a wide range of erotic encounters between women and animals. This paper seeks to show how artists started expanding the visual possibilities of these relationships, by analyzing their iconographical particularities, focusing on the dialectic of consent expressed in the works, and their reception by the public at the time. From the scandals of James Pradier's *Satyr and Bacchant* (1834, Musée du Louvre), and Emmanuel Frémiet's first *Gorilla Carrying off a Negress* (1859, lost plaster), to the academic works of Léon Riesener and William Bouguereau, this paper will explore the importance of animals in the representation of the fantasy of a decadent feminine sexuality, alternating between abductions, playful tenderness, sensuality and tragic treasons.

Shona McCombes, 'Wild sex: impotence, excess and the biopolitics of species conservation'

This paper will dwell on the sex lives of two endangered species living in very different spaces in Scotland today, aiming to illuminate a network of biopolitical relations between animal sex, species conservation, and national mythmaking. First, an enclosure at Edinburgh zoo, where two pandas have become part of the fabric of Scotland's public sphere. As a node in China's international strategy of "panda diplomacy", the animals' notoriously apathetic attitude to mating inspires erotic innovations like panda viagra and panda pornography, as nations compete to successfully

produce a cub. Panda sex is incessantly incited, under constant scientific and public surveillance. Next, to the sparse landscape of the Highlands to meet a more elusive creature, the Scottish wildcat, rarely caught under a human gaze. If the panda's sexual problem is impotence, the wildcat's is excess: the species is dying out by "genetic pollution", its genes watered down through interbreeding with domestic and feral cats. Competing conservation organisations struggle to define the boundaries of the species: if it looks like a wildcat and acts like a wildcat, is it a wildcat? Or do we need genetic tests and reproductive interventions to preserve its purity? The wildcat's unruly sex life, and the gendered, racialized stories that circulate around it, express the tensions of Scotland's precarious self-image. The paper will explore two main questions: what relations between nature, technology and politics are at stake in these opposing modes of reproductive regulation? How are national identities articulated through, imposed upon, and disrupted by the sex lives of endangered species?

Reuben Message, "A plan that seems almost miracle-working": Reproducing fish and social relations in the Scottish Borders'

The first significant and documented programme of breeding salmonids in Britain took place in Dumfriesshire in the 1830s. Its key innovation was the use of 'artificial fecundation', or the manual extrusion and mixing of fish 'milt' and 'roe', and the subsequent incubation and hatching of the fertilised eggs. While this 'artificial reproductive technology' would become famous as a potential source of food and means of restocking rivers with fish, its original purpose in the Scottish borders was more specific: it was deployed as a technique for resolving an apparently intractable controversy in natural history. This involved debate as to whether a particular small species of fish actually existed, or whether it was merely a juvenile form of salmon. Involving some of the great naturalists and literary minds of the era, the disagreement was largely settled by a gamekeeper named Shaw, whose deployment of the techniques of 'fish culture' was astute – as was, most importantly, his careful use of the rhetoric of empiricism as he responded to his 'scientific' detractors. This story of the reproduction of fish was therefore at the same time a story of the reproduction of social relations at a time of societal change.

Mario Ortiz-Robles, 'Freud's Vulture'

Freud's interpretation of Leonardo's childhood phantasy in which a bird of prey visits him in his cradle and introduces its tail into his mouth famously revolves around a mistranslation of *nibio* or *nibbio* (Italian for kite) as vulture (*Geier* in German). In Freud's reading, the bird in Leonardo's cradle phantasy stands as a figure for his androgynous mother and provides evidence for Leonardo's "passive" homosexuality. He bases this

reading on two kinds of evidence: the hieroglyph for the Egyptian word for mother *mut*, which represents a vulture, not a kite, and the “hidden bird” in Leonardo’s painting of Saint Anne, which, if it is a bird at all, is a vulture, not a kite. Freud connects Leonardo’s fantasy with the latter’s work on the flight of birds, but pays little attention to the fact that Leonardo sketched kites, not vultures. Critics have long pointed to Freud’s mistaken use of the figure of the vulture to disqualify his interpretation of Leonardo’s homosexuality, but what if we were to take Freud’s mistake as an invitation to view human sexuality from the perspective of the vulture as an animal rather than as a symbolic key for uncovering “aberrant” or non-normative human sexuality? This paper takes Freud’s vulture out of its strictly psychoanalytic context to consider what animal studies can contribute to the study of “unnatural” sex. Sometimes a vulture is just a vulture.

Biographies

Plenaries

Andy Butterworth: After graduation, Andy was a practitioner in mixed veterinary practice in Scotland (3 man rural farm practice, 1992 - 1994) and in Berkshire (16 man mixed and equine practice, 1994 - 1998). He carried out farm animal and companion animal clinical work, (and in practice in Scotland - wildlife clinical work related to birds and marine mammals). In Scotland he was an OVS (Official Veterinary Surgeon) carrying out statutory disease work and meat hygiene duties, and came to the vet school at Langford from veterinary practice to carry out production, pathology, and welfare research in the Division of Farm Animal Science. Andy has researched, and published on poultry production disease and pathology, cattle disease, and assessment methods in pigs, cattle, poultry and wild animals. He is recognised at a national and international level for work on animal production, animal ethical and animal use and abuse issues, and animal welfare assessment systems. He contributes to government committees, including EFSA and FAWC, international meetings, collaborative international research, work on standards and international legislation in animal production and also provides training in the UK, Europe and Internationally in areas of animal welfare during production and animal use. Andy is a Member of the EFSA Animal Health and Welfare Panel; Member of FAWC (Farm Animal Welfare Committee); a RCVS (Royal College of Veterinary Surgeons) Recognised expert in Animal Welfare, Ethics and Law; and is editor in Chief of the Elsevier Journal; *Veterinary and Animal Science*

Susan Richardson is a poet, performer and educator whose third collection of poetry, *skindancing*, themed around human-animal metamorphosis and our dys/functional relationship with the wild and our animal selves, was recently published by Cinnamon Press. Her previous two collections, *Creatures of the Intertidal Zone* and *Where the Air is Rarefied* (a collaboration with visual artist Pat Gregory), also published by Cinnamon, focus on her own, and other human and non-human animals', journeys through the increasingly fragile Arctic environment. Susan is currently poet-in-residence with both the Marine Conservation Society, writing poems and running workshops in response to their Thirty Threatened Species project, and the global animal welfare initiative, World Animal Day. She is the co-founder and poetry editor of Zoomorphic (www.zoomorphic.net), the online literary journal that publishes writing in celebration and defence of wild animals, and a Fellow of the International League of Conservation Writers. Susan has performed at literary, environmental and science festivals throughout the UK, for organisations such as WWF, the ONCA Centre for Arts and Ecology, Friends of the Earth and the Centre for Human Animal Studies, on BBC 2, and at Universities both nationally and internationally. She has also been a regular performer on BBC Radio 4 while resident poet on Saturday Live. As an educator, she has more than sixteen years' experience of coaxing people of all ages and backgrounds to engage with wildlife conservation and other environmental themes through poetry in an imaginative, dynamic way. She has been visiting academic at Flinders University in Australia and has an ongoing association, as performer and workshop facilitator, with ARCIO (Action Research and Critical Enquiry in Organisations) at the University of Bristol. For further information, please visit www.susanrichardsonwriter.co.uk

Stella Sandford is Professor of Modern European Philosophy in the Centre for Research in Modern European Philosophy at Kingston University, London. She is the author of *Plato and Sex* (Polity, 2010), *How to Read Beauvoir* (Granta/Norton, 2006) and *The Metaphysics of Love: Gender and Transcendence in Levinas* (Athlone/Continuum, 2000). She is co-editor (with Mandy Merck) of *Further Adventures of the Dialectic of Sex: Critical Essays on Shulamith Firestone* (Palgrave Macmillan, 2010) and (with Peter Osborne) *Philosophies of Race and Ethnicity* (Continuum, 2002). She is a long-standing member of the *Radical Philosophy* editorial collective and a member of the executive committee of the UK Society for Women in Philosophy. Her current research project is 'Sex Division in Natural History' and tests the hypothesis that the category of sex and the two terms which fall under it – male and female – occupy a peculiar and anomalous position in the methods, schemes and systems of classification in the great natural histories from the late-sixteenth to the early nineteenth centuries. She received a Major Research Fellowship from the Leverhulme Trust in 2017 to undertake this research.

Karl Steel is Associate Professor of English at Brooklyn College and the Graduate Center, CUNY. The author of *How to Make a Human: Animals and Violence in the Middle Ages* (The Ohio State University Press, 2011), his most recent work includes the medieval chapter to the *Cambridge Companion to Literature and the Posthuman* and the entry on the Friar's Tale in the *Open-Access Guide to the Canterbury Tales*. Forthcoming articles will be on white supremacist misappropriations of Vikings, Margery Kempe's vegetarianism, and disability and nonhuman gestures in Insular hagiography. His next book, *Medieval Nonhumanisms: Sympathy, Edibility, and Helplessness*, will be coming out with the University of Minnesota Press.

Panelists

Julien Dugnoille received his DPhil in Anthropology from the University of Oxford. His doctoral dissertation entitled *The Seoul of cats and dogs: Trans-species ethnography of animal welfare and animal cruelty in contemporary Korea*, will be published with the University of Chicago Press in 2018. This research is based on ethnographic fieldwork in Seoul from July 2012 until August 2013 and explores how Koreans struggle to make sense of the tension between the emergence of animal welfare and the perpetuation of traditional health behaviours that involve the processing of cats and dogs for food and zotherapy. He attracted prestigious Studentships (ISCA), Fellowships (Korea Foundation, Fulbright), Grants (Academy of Korean Studies) and Awards (World Congress of Korean Studies Paper Prize) for various aspects of his research agenda related to human-animal interactions. He has published some of his findings in peer-reviewed journals like *Ethnography*, *Visual Studies* and *Anthropology Today* and have a forthcoming manuscript with *Food, Culture and Society* (April 2018). He is also co-editing with Tim Ingold a volume on Living together and Symbioses based on the 2015 ASA conference held in Exeter which will be published with Bloomsbury in 2018. He has been full-time permanent Lecturer in Anthropology at the University of Exeter since 2015.

Catherine Duxbury is not an intellectual, nor an academic, just, well, average really. But, she does like to squirrel herself away in various historical archives around the country in the hope of achieving something significant. She is neither a sociologist or historian, and does not seek to be bound by the myopic ties of mono-disciplinary frameworks. Rather, Catherine likes to traverse boundaries and embrace interdisciplinary, which she argues allows for more imaginative and creative insights to emerge about the nonhuman animal. She recently gained her PhD in sociology, from the University of Essex, and is currently employed

(stuck?) in the educational version of MacDonald's, where even her attempts at subversion are being instrumentalised and under constant surveillance – try not to ask her about it, it will inevitably lead to a verbal stream of expletives! Other than that Catherine is passionate about the lives of nonhuman animals. She is a strict vegan and has three cats, Moon, Jack and Tofu, and a dog named Freya, who on many occasion have saved her life, if not made her economically less prosperous.

Jessica Eisen is a doctoral candidate at Harvard Law School, and a Visiting Researcher with Osgoode Hall Law School's Institute for Feminist Legal Studies. Jessica's research interests include equality law, constitutional law, law and social movements, feminist legal theory, and animal law. Her work has been published in the *Journal of Law and Equality*, the *Animal Law Review*, the *Canadian Journal of Poverty Law*, *Transnational Legal Theory*, *Queen's Law Journal*, *ICON-The International Journal of Constitutional Law*, and the *Michigan Journal of Law Reform* (forthcoming). Jessica has degrees from Barnard College (BA, Political Science and Human Rights Studies), The University of Toronto Faculty of Law (JD), and Osgoode Hall Law School (LLM). Jessica has practiced human rights and discrimination law and constitutional law in Ontario, Canada.

Greg Garrard is Associate Dean of Graduate Studies in the Faculty of Creative and Critical Studies at the University of British Columbia, Okanagan, and a National Teaching Fellow of the British Higher Education Academy. A founding member and former Chair of the Association for the Study of Literature and the Environment (UK & Ireland), he is the author of *Ecocriticism* (Routledge 2004, 2011 2nd edn), a widely-used introductory text that has been translated into Arabic, Turkish, Korean and Brazilian Portuguese. His research, ranging from British environmental fiction to animal studies, ecopedagogy and ecocritical literary theory, has been published in *SubStance*, *Contemporary Literature*, *Configurations*, *Studies in Romanticism*, and numerous edited collections. He is the editor of *Teaching Ecocriticism and Green Cultural Studies* (Palgrave 2011) and *The Oxford Handbook of Ecocriticism* (OUP 2014), and series co-editor of *Environmental Cultures* from Bloomsbury Academic. He is currently lead author of a comparative study of the cultures of climate scepticism in the UK, USA, France and Germany.

André Krebber is a critical and cultural theorist working across the environmental humanities, human-animal studies and the history and philosophy of science. His work concerns concepts and cultural notions of the animal, ecocriticism, epistemology and aesthetics. His current project explores natural beauty as an empirical category for a non-instrumental study of nature. He is a lecturer in social and cultural history/human-

animal studies at the University of Kassel, Germany, and at the moment also a postdoctoral fellow at the University for Edinburgh, UK. As part of his fellowship I am preparing his first monograph for publication under the title *The Animal Nonidentical of Enlightenment: Adorno and Ecocritique*, which investigates the animal as an object of knowledge in the context of the Enlightenment. He is an international associate of the New Zealand Centre for Human-Animal Studies, where he also pursued my PhD. In 2016, he co-hosted "Animal Biographies: Recovering Selfhood through Interdisciplinary Narration" at Kassel University. A selection of extended papers from the conference is being published in Palgrave's Studies in Literature and Animals series in 2018.

Ina Linge is Associate Research Fellow in the College of Humanities at the University of Exeter. She is a member of the University's Centre for Medical History and the Rethinking Sexology project, funded by the Wellcome Trust. Ina's postdoctoral project focuses on the ways in which early twentieth century sexologists in Britain, Germany, Austria and Switzerland made use of zoological research in order to study human sexuality, and the ways in which literature and culture reflected on the convergence of concepts of human and animal gender and sexuality. Ina has a PhD in German from the University of Cambridge, MPhil in Multi-disciplinary Gender Studies (also Cambridge), and BA in English and Creative Writing from Royal Holloway, University of London. Before her PhD, Ina spent a year as Tsuzuki Scholar at Nihon Keizai University in Fukuoka, Japan, to study Japanese language and culture. Ina's most recent publications include the co-edited volume *Biological Discourses: The Language of Science and Literature Around 1900* (2017).

Zoé Marty is a PhD student in Art History at the Ecole du Louvre. Graduated from the Ecole du Louvre, she studied the representation of justice in Fritz Lang and the iconographical links between art history and cinema. Her thesis focus on the representation of terrible animals at the romantic period in Germany, England and France. Her research interests also include bestiality and the figure of the 'femme fatale' in Nineteenth-century visual arts.

Shona McCombes is a postgraduate student in the European GEMMA programme in Gender Studies, jointly taught at the Central European University and the University of Utrecht, and funded by a prestigious Erasmus Mundus scholarship. She holds a first-class degree in English Literature and an MLitt with distinction in Modernities (funded by an AHRC scholarship), both from the University of Glasgow. Her broad research interests are in environmental humanities, animal studies, posthumanism, biopolitics, and narrative studies. The proposed paper is based on a chapter of her thesis, which investigates the politics of the "wild" in British

and Scottish national imaginaries, tracing relations between people, animals, plants and landscapes in conservation discourse and nature writing, particularly in relation to gender, race and class. She is also a published writer of fiction and criticism; last summer she was selected for a two-week residency at Outlandia, a treehouse studio in Glen Nevis, to work on research and writing related to her thesis project.

Reuben Message: originally from South Africa, Reuben originally came to the UK on scholarship to study literature, but was subsequently turned by sociology, science and technology studies, and human-animal related themes via an MSc and, a PhD at the London School of Economics, completed in late 2016. His thesis examined 19th century aquaculture techniques through the lens of the social studies of reproduction, arguing that these techniques constituted an early kind of artificial reproductive technology that, like those of the 20th century, was also highly productive socially: a 'social reproductive technology'. Reuben is a postdoctoral research assistant working on the Wellcome funded Animal Research Nexus project with Beth Greenhough and colleagues at the School of Geography and the Environment, University of Oxford. In this work Reuben is focusing on the introduction of zebrafish into laboratories and what their growing prominence in science means for practices of ethical review, the 3Rs, animal care and public engagements with animal research.

Mario Ortiz-Robles is the Mellon-Morgridge Professor of English at the University of Wisconsin-Madison. He is the author of *Literature and Animal Studies* (Routledge 2016), *The Novel as Event* (Michigan 2010), and, with Caroline Levine, editor of *Narrative Middles* (Ohio State, 2011).