

Sheep Pig Goat is a multi-component output, originally commissioned and presented publicly as a “creative research studio” by Wellcome Collection (the public engagement arm of Wellcome Trust) during the exhibition *Making Nature* (December 2016–May 2017).

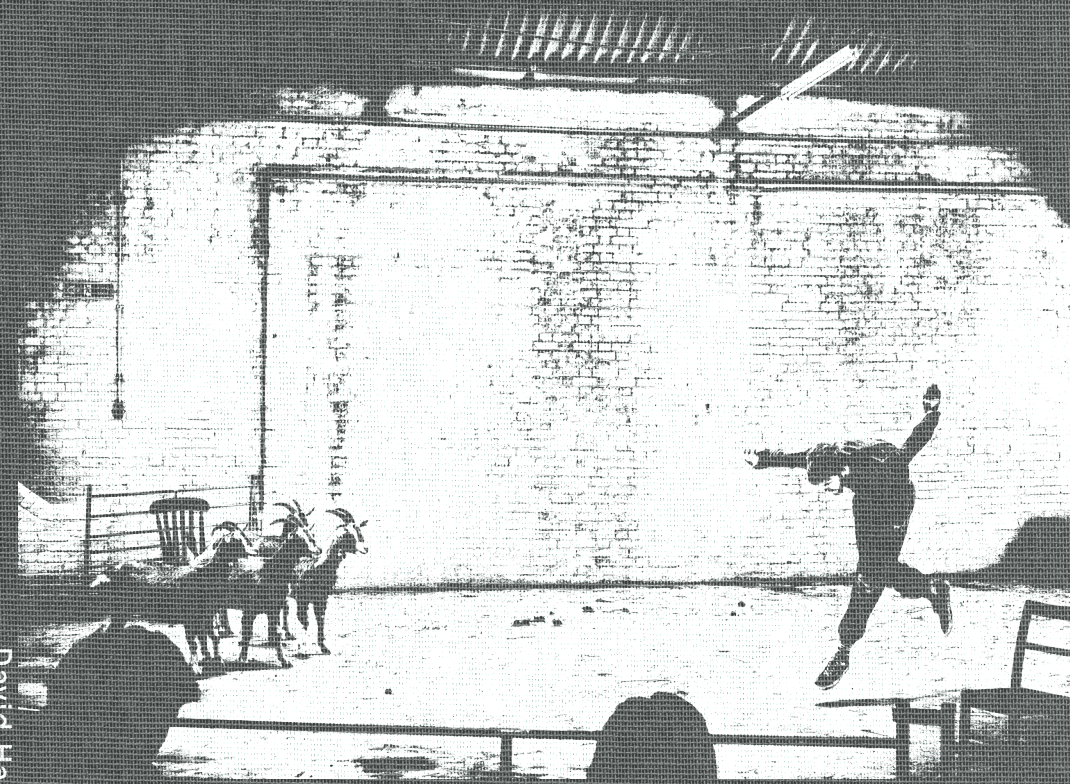
The project brought together performers from across artforms (dancers, singers, musicians), a number of livestock animals (sheep, pigs and goats) and academic researchers from various disciplines (history, design, philosophy, political theory, biology, literature) to explore, in public, a set of interrelated questions concerned with interspecies empathy, understanding and communication.

The key methodology of the research was a series of improvised performative encounters between human and non-human agents. These were framed by public conversations involving visitors to the research studio (members of the general public) and a series of panel presentations and discussions with visiting academics.


Following this initial public presentation of the research, a short film was made of the project. This was screened in the galleries at Wellcome Collection as part of a follow-on exhibition, ‘A Museum of Modern Nature’ (June–October 2017). Subsequently, an extensive archive entry for Wellcome Library was commissioned and created. The project was further developed at the University of Surrey School of Veterinary Medicine in 2020. This iteration expanded the multi-disciplinary and interdisciplinary reach of the project, bringing the perspectives of veterinary scientists into the project for the first time.



Key findings of the research concern methodological advancements in Human-Animal studies, specifically the need for multi- and interdisciplinary approaches, and multivalent perspectives, in order for non-human animals to begin to be seen as active subjects rather than passive objects. The project also impacted pedagogies and practices in a Veterinary School setting. It has led to numerous creative and scholarly outcomes and responses, including a published interview, podcast and three symposium presentations.

Sheep Pig Goat



David Harradine

Materials which comprise or support this submission can be found inside the box or on the USB drive  embedded in the box's interior lid. Within this publication, references for components of the submission are found in the right margin using a lettering system A-E. Items marked with an * are components of the output, all other items are contextual.

- A* *Sheep Pig Goat* film 
- B* Book: *Sheep Pig Goat: words from an interspecies research studio*
- C Document: Contextual Programme Titles, Contributors and Blogs
- D* Article: 2020. 'Sheep Pig Goat: An Interview', *Antennae: The Journal of Nature in Visual Culture*, 50: 165-76
- E University of Surrey podcast on *Sheep Pig Goat* 

Further information on these materials can be found on the reverse of the box's interior lid.

David Harradine

SHEEP PIG GOAT

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that is simultaneously challenging,
compassionate and inclusive.

His research proposes new ways
of thinking about interdependence,
care and the connectedness of the
human and more-than-human world.

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with Sam Butler, and produced by
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Overview

Sheep Pig Goat is a multi-component output supported by contextual material. It was produced by Fevered Sleep, the company of which I'm co-artistic director.

The preliminary development of *Sheep Pig Goat* took place through conversations with Honor Beddard, curator of the *Making Nature* exhibition at Wellcome Collection. An iterative process of writing and discussing the potential for a live event that would be part of the exhibition led to the project's overarching research question, which framed all subsequent research and development: to what extent can humans see non-human animals as individual subjects with specificity and agency, rather than as stand-ins for an entire homogenous species?

Humans tell ourselves all sorts of stories about animals, and animals look back at us from the sites of the very earliest human cultural production (for example, from the walls of the caves at Lascaux). Animals stand alongside humans as companions and as metaphors, in our mythology, our unconscious, our cultural history and our literature. Animals run through our folk tales. They crawl through our dreams. The stories we tell ourselves about animals allow us to decide what to do with them: where to keep them, how to treat them, when to eat them. Humans perceive animals for what we want them to be, and this human-centred perception becomes the foundation for our moral and ethical relations with non-humans; storytelling becomes a belief system becomes an ethical code becomes a set of permissible or forbidden actions which humans can enact upon the non-human.

Through performance, public conversations, workshops, presentations at symposia/conferences, film and writing, *Sheep Pig Goat* sought to explore the extent to which humans see non-human animals in more nuanced, alert and empathetic ways. It attempts to de-centre the human point of view, and to use the heightened sensitivities of dancers, musicians and singers (for example, their heightened sensitivity to nonverbal communication or their alertness to the nuance of a non-human voice) to create a space in which non-human animals might occupy the centre ground. In so doing, the project creates a space for researchers, participants and audiences to collectively reflect on the ethics and politics of human interaction with

— and exploitation of — non-humans. It seeks to fulfil its research aim through a methodology that is both multi-disciplinary (it draws on knowledges and methods from multiple disciplines) and interdisciplinary (it produces new methods and knowledges through combination). It proposes that this multi-perspectival approach is essential in order for human knowledge of non-humans to move beyond cultural, scientific and epistemological constructions.

Key development and dissemination points

2017	March	<i>Sheep Pig Goat</i> creative research studio as part of <i>Making Nature</i> exhibition (offsite in Peckham, London).
		Panel discussion as part of 'Wild Minds' symposium, ICA, London.
	June–October	<i>Sheep Pig Goat</i> film in <i>A Museum of Modern Nature</i> exhibition at Wellcome Collection.
2019	April	<i>Sheep Pig Goat</i> archive donated to Wellcome Library.
2020	February	<i>Sheep Pig Goat</i> creative research studio at the University of Surrey School of Veterinary Medicine (Surrey Vet School).
	November	London Arts and Humanities Partnership (AHRC-funded Doctoral Training Partnership) practice research training event.

Funding

Sheep Pig Goat was commissioned by Wellcome Collection, with additional funding from Wellcome Trust via Fevered Sleep's peer-reviewed 4-year grant 'Experiments in Public Engagement'. The archive entry was funded by Wellcome Library. The subsequent iteration at Surrey Vet School was commissioned as part of 'Performance, Philosophy and Animals: Towards a Radical Equality', a 2-year research project funded by the AHRC's Leadership Fellows scheme and led by Dr. Laura Cull Ó Maoilearca at the University of Surrey. The project was also part funded by The Royal Central School of Speech and Drama, University of London.

I Overview

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FIG 1 *Sheep Pig Goat* creative research studio during an open session with visitors, Peckham, London, March 2017

II Questions, aims and objectives

The overarching aim of the research undertaken through *Sheep Pig Goat* was to interrogate the extent to which humans are able to see and pay attention to non-human animals in ways that are less mediated by cultural, historical, scientific and other learned constructions of the notion of “animal” (specifically, constructions of “sheep”, “pig” and “goat”). This aim can be articulated as the project’s key research question: to what extent can humans see non-human animals as individual subjects with specificity and agency, rather than as stand-ins for an entire homogenous species?

The research confirms that in order for humans to become more fully and empathically attuned to non-human animals, scientific, learned and intellectual knowledge is insufficient, and all kinds of embodied, multi-disciplinary ways of knowing need to be deployed as well. As Bruno Latour has said, ‘to understand what animals have to say, all the resources of science *and* of the humanities have to be put to work’ (Latour in Despret 2016: vii). This multi-disciplinary, interdisciplinary and accumulative approach is at the heart of *Sheep Pig Goat* and is reflected in the format of the creative research studio and in the multi-disciplinary perspectives and contributions that are key to the research methodology. Indeed, it is through these methodological innovations that the research makes a significant contribution to the several disciplines with which it intersects.

In order to achieve the overall research aim of seeing non-human animals as individual subjects with specificity and agency, rather than as stand-ins for an entire homogenous species, the following research questions were developed for and through the first iteration of the project in 2017:

How can the particular skills developed through performing practices (e.g., the deep listening of a musician, the vocal dexterity of a singer, the kinaesthetic empathy of a dancer) lead to new ways of attending to and knowing non-human animals?

How can improvisation-based approaches to performance — inasmuch as they rely on real-time attunement to what is occurring in the specificity of the “here and now” — increase the likelihood of encountering individual sheep, pigs or goats

as active individual subjects rather than as passive objects that stand in for whole species?

Is it possible for performative encounters between human and non-human animals to provide a framework for a human observer (as a member of an audience) to see non-human animals in direct and less mediated ways?

How can contemporary performance practice become a locus for multi-disciplinary perspectives on human/non-human animal relationships from across the humanities, arts and sciences, thereby developing new frameworks for seeing and understanding non-human animals?

An additional research question was developed for the residency at Surrey Vet School in 2020:

How can creative approaches to attention, communication, looking, listening and learning propose new epistemologies and practices in a vet school setting?

At the beginning of the 21st century, the world is in a climate crisis, on the verge of multiple ecosystem collapse and facing a mass extinction event directly linked to human activity. Never have humans exerted such pressure on natural resources at the same time as becoming increasingly separated from the non-human world. As these effects are gathered together under the term “Anthropocene” (the epochal era marked by humans’ dominant effect on environment and climate), there has never been a greater need for strategies for reconnecting human activity (including the production of human knowledge) with the non-human (be that in the form of other species, degraded ecosystems or whole-planet climate systems).

In attempting to re-attune human attention, empathy and knowledge production to the specificities of non-human animals, *Sheep Pig Goat* speaks to the politics of the Anthropocene and aligns itself as a project with wider consciousness-raising endeavours, such as the rapid shift in the developed world towards a vegan/plant-based diet or environmental activist movements ranging from the School Strikes to Extinction Rebellion. At the time of writing, the world is still attempting to cope with the unprecedented global health emergency posed by COVID-19. It is clear that this pandemic is a result of a zoonotic transmission (a virus of non-human origin jumping across species boundaries to the human population), most likely as a result of the trade in wild animals for human consumption (Mackenzie and Smith 2020). Never has it been more urgent that we pay closer attention

to the non-human animals with whom we share the planet, and to the moral, ethical, environmental, political and epidemiological impacts and implications of the rampant exploitation of the natural world by humans. *Sheep Pig Goat* seeks to add new knowledges, new perspectives and new methodologies to this urgent work.

Sheep Pig Goat was framed as an 'open research studio'. Unlike many performance-based practice research projects, the research in *Sheep Pig Goat* did not take place in a hidden or private process (such as in a rehearsal room, devising process or through playwriting) leading to public presentations of research outcomes. Instead, the whole research process itself was conducted in public, and the participation of large numbers of people in the research (ranging from general publics who visited the research studio as part of the *Making Nature* exhibition, to specialist academic advisors from across disciplines who contributed to the project) was one of its central methodological approaches. The public setting for the research was an important part of its methodology and findings. One of the threads that runs through the research concerns the different ways in which humans encounter non-human animals (as companions, as food, as objects in industrial systems of production). Matters of visibility and access to the lived experiences of individual animals become important when animals are routinely transformed for human use and consumption. Conducting the research in a public setting as part of a high-profile exhibition (rather than the research preceding the exhibition and leading to an object that might have been displayed within it) speaks to the urgent need for humans to better attend to the lived experiences of the non-human; needs that increase as we face a climate and ecological catastrophe. Furthermore, the research is underpinned by an insistence that human-animal relations are marked by extraordinary complexity (even though capitalist systems of industrial production seek to reduce non-human animals to simple commodified objects). In keeping with this complexity, the research deploys a methodology that relies on the multi- and interdisciplinary perspectives and active participation of many people (both academic and scientific experts, and the members of the public who visited the research studio).

Sheep Pig Goat was simultaneously a research process, a research methodology, a research outcome and a mechanism for research dissemination. Linear approaches to research collapsed in the project: visiting audiences opened up new research questions by witnessing and discussing research outcomes, research methodologies were challenged through the act of public dissemination,

all outcomes were provisional and dependent upon the contributions of the particular groups of people who attended in each studio visit. Crucially, the research process was also shaped and challenged by its non-human participants, who brought the agency of individual sheep, pigs and goats to bear on everything that was planned and all questions that were asked, shifting the research in unexpected directions and into unplanned territories.

The aim of the project was to create multiple strategies and spaces that could initiate new ways of thinking (and feeling) about interspecies communication, awareness and empathy. Key to this was the framing of the project as part of Wellcome Collection's *Making Nature* exhibition. The curatorial aim of the exhibition was to examine 'what we think, feel and value about other species and what this means for the world around us [...] to reveal the hierarchies in our view of the natural world and how these influence our actions (or inaction) towards the planet' (Wellcome Collection, 2020). By inviting general publics into an open research process, and staging a series of encounters between multiple species (human and non-human), and also between multiple human experts from across disciplines, the project aimed to produce new multi-disciplinary and interdisciplinary perspectives on interspecies relations, with multiple new epistemological approaches to understanding these relations.

In the iteration at Surrey Vet School, the specificity of the context for the project similarly shaped its intentions. Studies undertaken in Italy, the US and the UK (Pollard-Williams *et al.* 2014; Schoenfeld-Tacher *et al.* 2015; Colombo *et al.* 2016) have demonstrated that empathy towards non-human animals declines as a vet student progresses through training, into professional placement and then employment, with a shift towards detached, mechanistic approaches to seeing and thinking about non-human animals, and a changing perception of human-animal continuity (i.e., the ability of non-human animals to think and feel: Colombo *et al.*, 2016). In this context, *Sheep Pig Goat* aimed to invite vet students and teaching staff into new sorts of encounters with non-human animals, so as to challenge this empathy deficit. It deployed the performance-based approaches to attention, perception, communication and empathy that had been developed through the first iteration of the project in a setting in which livestock animals were more usually encountered in the form of anatomical models and mechanical replica teaching aids that stand in for whole species, rather than as living, breathing subjects with specificity, individuality and agency (FIGS 2-3).



FIG 2 Vet students engaged in dancer-led activity on attentiveness, alongside anatomical models of horses



FIG 3 Horse skull, plastic horse legs and fabric horse used as teaching aids at the University of Surrey School of Veterinary Medicine

SHEEP PIG GOAT

Key research objectives

- ⦿ To use performance practices to enable encounters between human and non-human animals as a device for initiating debate and conversation about interspecies relations and challenging pre-existing assumptions and prejudices concerning non-human animals.
- ⦿ To develop a format for a public research process that successfully enabled audiences and participants to both witness and contribute to the research being undertaken.
- ⦿ To bring together experts from across creative fields and academic disciplines to propose new ways of thinking about interspecies relations.
- ⦿ To enable humans of all kinds (general publics, scientists, vets, adults, children) to see non-humans as individual subjects rather than as mechanistic representatives of an entire species.
- ⦿ To place non-human animals at the centre of a process that aimed to cultivate better skills of paying attention, noticing difference and seeing specificity across species: how can a sheep help a human see better?

III

Context

Art without animals. How grim would that be? The history of art would surely be far less exciting without its animal presences [...] What about animals without art? It seems plausible that they would thrive without it, or without anything human for that matter. But is that really so? Are not artistic projects capable of inaugurating privileged interspecies relationships, new ways of comprehending and addressing animals, which can encourage the bond between human and non-human beings?

Filipa Ramos (2016: 12)

Caring means becoming subject to the unsettling obligation of curiosity, which requires knowing more at the end of the day than at the beginning.

Donna J. Haraway (2008: 36)

Sheep Pig Goat is rooted in both professional creative practice (as part of the *Making Nature* exhibition) and in various academic disciplines including Animal Studies and Human-Animal Studies, which over the last two decades

have grown rapidly as organising categories for a heterogeneous range of approaches to understanding human relationships with, and perception of, non-human animals. For example, the Brill Human-Animal Studies Book Series has published titles on subjects as varied as *Meat Culture* (Potts 2016), *Animals at Work* (Hamilton and Taylor 2013) and *Animals and War* (Hediger 2012). Feminist philosopher Donna J. Haraway has published hugely influential books on companion animals, interspecies encounters and the radical continuity of social bonds between the human and non-human in the age of the Anthropocene (Haraway 2003; 2008; 2016). In the UK, this growing field has been particularly shaped by the British Animal Studies Network (britishanimalstudiesnetwork.org.uk, henceforth BASN), an interdisciplinary network that seeks to bring together academics and researchers from across disciplines (particularly literary studies, history, anthropology and social sciences) and, crucially, that recognises and advances the importance of knowledge produced in non-academic settings, such as by NGOs, in museums and in the arts. According to its website, the Network seeks to catalyse the ‘massively productive’ potential for multi-disciplinary research across disciplines within academia — and with organisations and projects beyond academia — and as such paves the way for multi- and interdisciplinary methodologies developed, and advanced through practice, by *Sheep Pig Goat*. However, whilst grounded in discourses of animal rights and multi-species social justice (the context also for *Sheep Pig Goat*), the Network inadvertently and problematically reproduces the “animal” as an object of human study. In relocating non-human animals not as passive objects of study, but as active participants in, and contributors to, research methodologies, *Sheep Pig Goat* moves forward multi-species research of the type advocated by the BASN.

Veterinary Medicine provides another important context for the research undertaken through *Sheep Pig Goat*. Within this discipline, attitudes to non-human animals tend to be mechanistic, reducing non-humans to anatomical units and objects of study. The iteration of the project at Surrey Vet School sought to address the empathy decline previously described, and in so doing, the project aligned itself with ‘whole animal’ approaches to the study of non-human animals (in particular, farmed livestock animals) which develop different methodologies for studying and ‘paying attention to’ individual animals as not only physical entities, but also as sentient, emotional, communicative subjects (Wemelsfelder 2012; 2020).

Post-war artistic practice in Europe, Australia and the US has been heavily populated by non-human subjects,

interlocutors, participants and co-creators. In 1974, Joseph Beuys spent three days locked in a room with a live coyote in his action *I Love America and America Loves Me*, and 40 years later Kira O'Reilly's *Falling Asleep with a Pig* saw O'Reilly spend 72 hours sharing a living space with a domestic pig. Filipa Ramos's edited collection *Animals* in the Documents of Contemporary Art series (Ramos 2016) surveys the breadth and complexity of this practice, highlighting work by artists including Maria Fusco, Joan Jonas, Marcus Coates, Carolee Schneemann and Haegue Yang. In theatre and performance, Italian company Societas Raffaello Sanzio has made shows featuring horses, sheep, dogs and bulls (e.g., *Giulio Cesare*, 1997) and the UK company Quarantine has worked with rabbits and parrots (*Old People, Children and Animals*, 2008). Other artists that have featured non-human animals in their work include Pina Bausch (Germany), Jan Fabre (Belgium) and Rodrigo García (Spain) (see Orozco 2013 for further examples). My own previous work with *Fevered Sleep* has included projects involving horses (*An Infinite Line: Brighton*, Brighton Festival, 2008); dogs (*Above Me The Wide Blue Sky*, The Young Vic, 2013); and badgers, foxes and owls (*Dusk*, The Young Vic and national tour, 2014), among others.

Sheep Pig Goat is part of this lineage of projects in which human and non-human agents occupy the space of performance or co-habitation together, and indeed the individual sheep, pigs and goats are far from the first animals to be central to — and essential for — the enactment of human research. However, unlike in many of its artistic predecessors, the non-human animals in *Sheep Pig Goat* do not function as ciphers or metaphors for something else (such as Beuys' co-habiting coyote as a metaphor for America), nor as scenographic or dramaturgical ‘interruptions’ of the human endeavour of art-making, nor as more or less unregulatable challenges to perceived restrictions placed on human creative practice (see Orozco 2013). Similarly, these sheep, pigs and goats do not have research enacted upon them (an enactment which can lead to terrible consequences for the animals involved, particularly in laboratory settings). Instead, they actively contribute to and advance the research; they are central to its multi-perspectival methodology, and critical agents in challenging human observers to see beyond cultural and scientific constructions of animals as passive narrativised objects, to the animal as a dynamic, emergent subject. As the first project of its kind to engage non-human animals as active research collaborators in a formal practice research setting, *Sheep Pig Goat* marks a significant advance in multiple fields, including multi-species creative practice (in music and dance) and related academic

disciplines, studies of animal cognition and welfare, animal behaviour studies and veterinary pedagogy.

Livestock species occupy a paradoxical space in Western culture. They are often found in intimately close encounters with humans as their processed bodies enter homes and kitchens as sources of food; and yet they remain largely unknown as whole subjects with individual specificity which distinguishes them both from the culinary vocabulary (of chops and steaks and mince) that they are literally reduced to and the reductive categories of “species” or “breed” for which each individual animal becomes a synecdoche. The multi-artform and multi-disciplinary perspectives and epistemologies that *Sheep Pig Goat* brought to bear on the research process were necessary to push against this ‘visible invisibility’, which arises from several hundred years of the myth of human exceptionalism that make attentiveness to non-human animal subject specificity almost impossible.



IV Methodology

The research was developed over a 4-year period from 2016–20. Initial research comprised literature reviews and face-to-face interviews with a number of academic experts and researchers. Research collaborators during this stage of the research included Alan McElligott, Reader in Animal Behaviour at Queen Mary University of London; Caroline Spence, PhD candidate researching Public Perceptions of Animal Welfare at Queen Mary University of London; Alex Tyrrell, Head of Public Programmes at Science Museum; and Robert Kirk, Lecturer in Medical History and Humanities at the Centre for the History of Science, Technology and Medicine, University of Manchester. The purpose of this process was to establish a set of parameters and “signposts” for how to think about interspecies communication, attention and empathy.

This initial research ran in parallel with the development of the concept for the project, which emerged through conversations with the curator of the *Making Nature* exhibition. This led to the development of the idea of performance-based encounters as a key methodology. This was first explored in practice in December 2016. Research and development workshops brought together two dancers and a musician in a series of controlled encounters with non-human animals. The specific purpose of these workshops

FIGS 4–5 Improvised interactions between a dancer and sheep and a musician and pigs, during an open session at the creative research studio in Peckham, London, March 2017

FIG 6 Visitors watching an improvised encounter between performers, sheep, pigs and goats during an open session →



was to establish what kinds of non-human animals might be included in the project. Encountered species included domesticated animals (dogs, horses), wild British animals which had been rescued following injury and were acclimated to human contact (badger, fox), various livestock animals (sheep, cows, pigs) and a domesticated wolf (which had been born in captivity). It was clear from these workshops that some species can never escape from the projection of human cultural understanding on them (most clearly in the case of the wolf, which is entirely entrapped in European folklore). Some are too familiar (the domestic dog). These workshops identified livestock animals as the focus for the project. Between these workshops in 2016 and the first public iteration of the research in March 2017 the focus of the research was on developing a network of contributors from multiple disciplines, developing a rigorous animal welfare policy and framework and attending to the practical and producing aspects associated with all practice research.

Because the whole project was conceived and presented as a public research studio, its methodology, outcomes, dissemination and impacts are closely intertwined, and ultimately non-linear. The central methodologies of the project were:

- i. performance-based encounters between species, which placed a focus on heightened skills of listening, looking, vocalisation and embodied knowledge;
- ii. multi-disciplinary and interdisciplinary encounters between experts from diverse fields and general publics who visited and participated in the research;
- iii. staged conversations between artists, visitors, audiences, participants, academics, scientists and other experts, so as to propose and produce new multi-perspectival understandings of, and attitudes to, human-animal relations.

The project's structure (particularly in its first iteration in 2017) was cyclical and repetitive, but due to its participatory and multi-perspectival nature these repetitions were marked by significant variation and development. The crucial involvement of non-human animals as research participants further shifted the methodology from a linear process planned in advance and executed through practice, into a state of emergence in which all research questions, methodologies, responses, findings and disseminations were live and provisional.

The research studio was designed (spatially, visually and in its schedule) to facilitate new ways of thinking, talking and feeling about interspecies relations, communication and

empathy. Because all visitors to the studio (from academic experts to general publics) participated as co-researchers and interlocutors, the project was designed to facilitate their participation in the most affecting ways to advance the research questions and achieve the research aims.

In its first iteration in Peckham, the project took place in an unheated warehouse space where 2 pigs, 3 sheep, 5 goats, 3 musicians, 1 singer and 2 dancers took up residence for a week. At one end of this large space, a sort of "enclosure" was created which functioned both as a safe space for the non-human animals to be housed for the week (they were able at all times to retreat to their sleeping quarters should they choose to) and as an area in which the performance-based encounters would take place. At the other end of the space, a freestanding room was built within the warehouse, which functioned as an area of conversations and discussions between the various humans involved in the projects (myself, my collaborators, expert contributors and visitors/general publics). This room contained a small library of books and articles pertinent to the research, key extracts of which were also displayed on the walls of the space. At the start of each open session, visitors were given time to browse these materials, seeing images of and reading about various aspects of human-animal relations, specifically those concerning human relations with sheep, pigs and goats. Similarly, the walls of the space were covered by printouts of several hundred words associated with human-animal relations, again specifically those associated with sheep, pigs and goats. These materials (books, extracts, words) provided visitors with immediate access to pre-existing knowledge about the areas of the research. The individual words in particular (for example, cow / calf / baby / body / milk / maternal / instinct / culture / nature / separation / object / subject / squeal / scream / slaughter / mince) acted as provocations, heightening visitors' alertness to the multiple and contradictory attitudes of humans to non-human animals. Visitors to the studio added to the words on the wall, so that their participation left a visible trace for future visitors and added to the growing body of knowledge and ways of seeing and thinking about non-humans that underpinned the research. For the purposes of this submission, these words have been collated into a new book.

Each day, scheduled times for open studio sessions enabled people to enter the space and join the research. At the start of each of these sessions, myself and Fevered Sleep's co-artistic director Sam Butler hosted a conversation with the visitors, which laid out the context for the research, its aims, and explained the structure of



FIG 7 Visitors to the research studio read words associated with human-animal relations

FIG 8 Discussion between artist/researchers and visitors: the final part of an open session at the creative research studio, Peckham

SHEEP PIG GOAT

their visit. Once this introductory conversation with visitors had taken place, they moved to the performance area and watched a series of improvised, task-based encounters between the human performers, sheep, pigs and goats (see *Sheep Pig Goat* film). They were invited to make notes on a set of cards that asked them 3 questions:

what do you notice?

what do you feel?

what are your questions?

This invitation became a formal strategy to facilitate the active participation of visitors in the research. As explained above in the section on research aims and objectives, multi-perspectival contributions to the research were both methodologically necessary and ethically important. After these encounters, visitors and performers returned to the conversation space to reflect on what had happened, discuss this experience in relation to the previously stated aims and to share what they had noted on their cards. Each of these sessions had a guest respondent who acted as an interlocutor to the conversations taking place. These respondents were drawn from a broad range of disciplinary and creative settings. They included museum curators; a number of artists, designers and writers; biological scientists; a historian; and an anthropologist (see printed document *Contextual Programme Titles, Contributors and Biogs* for full details). The guest respondents functioned as another method for bringing multi-disciplinary perspectives into the research. The overarching aim of the conversations that opened and closed visits to the research studio was to:

- i. bring multiple knowledges and perspectives into the research;
- ii. gather data on the extent to which visitors' attitudes towards and understandings of human-animal relations were shifted by participation in the research; and
- iii. contribute to an iterative process of developing the research, its questions, its methodology and its focuses as these unfolded over the course of the week.

This emergent methodology was tethered to the overarching research question: to what extent can humans see non-human animals as individual subjects with specificity and agency, rather than as stand-ins for an entire homogenous species? The conversations between researchers, visitors, guest respondents and contributors, specifically the active and participatory role adopted by visitors to the research

studio, provided a method for tracking the extent to which the research made such attentiveness and awareness possible. As with all my research, the central aim of *Sheep Pig Goat* was to invite people to see, think and understand differently; for the research to be a transformative as well as informative process that unfolds in real time with and through the participation of those who encounter it.

This structure described above was repeated 3 times daily for 6 days, with research aims and questions being adjusted as learning and interpretations accrued across the week. On 3 of these days, in the evening, “Contextual Conversations” brought together experts and academics from across disciplines to discuss and debate a set of related themes connected to the research. The titles of these conversations — ‘On Intelligence and Emotion’, ‘On Rights and Relationships’, ‘On Seeing and Becoming’ — addressed various key aspects of human-animal relations, especially the moral, ethical and political dimensions of those relations (see printed document *Contextual Programme Titles, Contributors and Biogs* for full details). C

These conversations were another methodological approach to staging multi-perspectival, multi- and interdisciplinary encounters between the researchers, expert advisors and contributors, and visitors, again providing anchor points for the research as it unfolded across the week. Overall, the intention of the research was not to arrive at closed findings or specific answers, instead, deliberately, it sought to open up a proliferation of ways of seeing, ways of knowing and ways of encountering non-human animals. This open, emergent and multi-faceted approach to research arose in response to the palpable limits of the research itself: that it is ultimately impossible to see a non-human animal without recourse to mediation through existing cultural and scientific knowledge; in the same way that it is ultimately impossible to know what a sheep, a pig or a goat sees, knows and encounters when it encounters a human.

The performative encounters that were central to these methodologies were expressly *not* instances of human performers performing for animals; nor were they stagings of animals performing for the human visitors to the studio (the public audience). Instead, performance and performers were key to the methodological approach because of the ways in which performance frames and heightens acts of paying attention (in both performer and audience), and because of the highly developed skills of deep listening, vocal dexterity and kinaesthetic empathy that musicians, singers and dancers bring to their work (skills that might be needed in order to break through human resistance to the idea that there is continuity

between human thought and feeling and the thoughts and feelings of other species).

At Surrey Vet School (FIG 10), the project followed broadly the same format, with groups of visitors comprising vet students and staff, primary school children and general publics visiting and participating in the research at pre-scheduled times. This iteration featured one public contextual conversation, with contributions from author and editor Filipa Ramos and Françoise Wemelsfelder, Professor of Animal Behaviour and Welfare at Scotland’s Rural College.

Some key developments to the methodology developed in response to the different functional and architectural design of the space at the Vet School and the particular health and safety limitations that arose in such a setting. One key difference was that performers and visitors moved through a series of spaces in which the animals were housed permanently at the Vet School. Because these enclosures were deliberately small — so that animals used in teaching have limited range of movement and mobility — they intensified the moral, ethical and political dimensions of the research and became catalysts for a number of conversations with both expert contributors and visitors from the general public. Inasmuch as a key aim of the research was to facilitate a process of “really seeing” a non-human animal as a subject with agency and intention, this architecture, whilst ultimately distressing to work in, contributed significantly to this aim, because it was an architecture expressly designed to limit the agency and intention of non-humans.

Another significant shift in the focus of the research at Surrey Vet School, which again arose in part from the architectural limitations of the space and the ethical issues this gave rise to, was a shift in focus away from *encounters* between human and non-human animals, and some first steps towards a research methodology that focused instead on kinship and companionship, and exploration of the extent to which humans can be of use to non-human animals: of use as companions, as environmental enhancements and as advocates. Although this refocused research is as yet incomplete and will be developed in future iterations of the project, it did lead to some impacts at Surrey Vet School, including environmental and welfare improvements.

v

Timeline

2015 2016	June– May	Initial conversations with the curator of <i>Making Nature</i> at Wellcome Collection. Development of the concept of a space for performative encounters between human and non-human participants. Cross-disciplinary research/reading and meetings with a number of academics and advisors from across disciplines. <i>Sheep Pig Goat</i> commission from Wellcome Collection confirmed in July 2016.	
2016	July– November	Contextual research (reading, further meetings with academic advisors and contributors, identifying potential contributors to the contextual programme).	
	December	Research and development workshops which brought together two dancers and a musician in a series of controlled encounters with non-human animals, leading to the identification of livestock animals as the focus for the project.	
2016 2017	December– February	Further research and development, reading, meetings, confirmation of contributors to the contextual programme, design and production period (preparation of the space of the research studio). Development of animal welfare protocol and licensing/permissions sought and granted.	
2017	March	Open research studio and programme of contextual events as part of the <i>Making Nature</i> exhibition. This took place in an unheated warehouse space in Peckham, London. See film, book of 'Words from an interspecies research studio' and contributors for documentation.	A B C

FIG 9 Goats watching a dancer during an improvised encounter (the dancer attempts to take on the physical qualities of a goat)



The studio was open to visitors for 1 week and consisted of the following public sessions:

9 open sessions during which 30 visitors at a time participated in and advanced the research. These sessions included a total of 9 “encounters” — performative interactions between dancers, a singer, musicians, sheep, pigs and goats.

18 “framing conversations” — each encounter was framed before and after by a conversation with visitors, which laid out the research questions they were being asked to engage with and respond to. Each of the 9 conversations that followed each encounter featured a “guest respondent” who functioned as an interlocutor to the research (see printed document *Contextual Programme Titles, Contributors and Biogs*). C

3 “Contextual Conversations” — public interdisciplinary conversations between academics and experts from a range of disciplines (see printed document *Contextual Programme Titles, Contributors and Biogs*). C

June–July Creation of the film of *Sheep Pig Goat*. A

June–October The film of *Sheep Pig Goat* installed in the *A Museum of Modern Nature* exhibition at Wellcome Collection.

2018 July– Collation of materials for the *Sheep Pig Goat* archive that was requisitioned by Wellcome Library. Submission of the archive items to Wellcome Library.

2020 February Residency at University of Surrey School of Veterinary Medicine.

VI

Findings

The research confirms that in order for humans to become more fully and empathically attuned to non-human animals, it is insufficient to base such understanding only on scientific, learned and intellectual ways of knowing. It proposes instead that all kinds of embodied, creative and multi-disciplinary ways of knowing need to be deployed as well in order to multiply and expand ways of seeing, ways of knowing and ways of encountering non-human animals.

Outcomes for the iteration with Wellcome Collection, 2017–18

- ⊙ A creative research studio open for 1 week during the *Making Nature* exhibition;
- ⊙ 18 open sessions in which visitors visited the studio and participated in the research, including 18 conversations with invited interlocutors;
- ⊙ 3 contextual conversations involving experts and academics from across disciplines;
- ⊙ A film document of the project (which was subsequently screened in *A Museum of Modern Nature* at Wellcome Collection and online);
- ⊙ A substantial entry for the research archive at Wellcome Library;
- ⊙ An interview with myself, Fevered Sleep’s co-artistic director Sam Butler and the curator of *Making Nature*, Honor Beddard, published in the journal *Antennae: The Journal of Nature in Visual Culture* in Spring 2020. D

Outcomes for the iteration at Surrey Vet School

- ⊙ A creative research studio open for 5 days on site at the University;
- ⊙ 5 open sessions in which people participated in the research;
- ⊙ 1 contextual conversation;
- ⊙ A podcast was created which discussed the themes and challenges of the project. E

Data supporting the reach of the research

- ⊙ 512 people visited the open sessions in the first iteration (general publics);
- ⊙ 19 academics/experts participated in the project as interlocutors or contributors;
- ⊙ Over 29,000 people have engaged with the project on social media;
- ⊙ 69,424 people saw the *Sheep Pig Goat* film when it was shown at Wellcome Collection during *A Museum of Modern Nature*;
- ⊙ 1241 people have watched the *Sheep Pig Goat* film online;
- ⊙ 90 people have attended talks and presentations I have given on the project;
- ⊙ 40 vet students/staff engaged with the project at Surrey Vet School;
- ⊙ 60 other people visited the project at Surrey Vet School.



FIG 10 Discussion between artist/researchers, performers and vet school staff and students during the residency at University of Surrey School of Veterinary Medicine, February 2020

I have spoken about the research at the following events:

2017	31 March	Panel discussion in the 'Wild Minds' symposium at ICA, London as part of <i>Making Nature</i> .
	7 November	'Thinking Alongside Performance', a public conversation with Laura Cull Ó Maoilearca as part of Independent Dance's <i>Crossing Borders</i> series at Siobhan Davies Studios, London.

2020	10 November	London Arts and Humanities Partnership (AHRC-funded Doctoral Training Partnership) practice research training event.
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Sheep Pig Goat was discussed in 11 articles and conference papers in 2017–19.

The project has engaged several hundred people in multi- and interdisciplinary and multi-perspectival research on human-animal relations. The methodological advances that the project has enabled offer a significant contribution to the field, with the potential to impact across disciplines. By insisting that research in Human-Animal studies is most effective when conducted through a multivalent approach (so as to escape existing knowledge systems that erase the specificity of knowledge that arises through encounters with individual animal subjects), the project successfully developed a methodology which incorporates animal subjects as active participants in the research, rather than as passive objects of experimentation and study.

The project also developed a format through which the people who visited the studio were not simply passive readers or receivers of the outcomes of pre-existing research, but who instead advanced the research as active contributors and interlocutors. This is an important aspect of the project, as it affirms the importance of multi-perspectival and intersubjective approaches to interspecies research. In so doing, it insists, through the practice of research itself, that human and non-human animals are tightly interwoven in all systems of ethical and political discourse, and that this imbrication has implications for behaviour on a personal level (as experienced by all those who participated in the project) as well as in the development of societal attitudes to the non-human. As I have previously stated, at a time of ecological collapse and when zoonotic disease transmission highlights the complexities and risks associated with human-animal relations, the need to raise awareness, challenge pre-existing thinking and encourage human alertness to the lived experience of the non-human is more urgent than ever before.

These novel methodological approaches — which stand as key findings from the research — effectively addressed the overarching research aim, which asked: to what extent can humans see non-human animals as individual subjects with specificity and agency, rather than as stand-ins for an entire homogenous species? Whilst cognisant of the ultimate ethical problem of all research involving live animal subjects, *Sheep Pig Goat* makes considerable progress towards creating, through embodied and intersubjective practices, a humane and animal-centred approach to interspecies research.

In addition to this, *Sheep Pig Goat* has challenged and advanced practices at Surrey Vet School. It had a direct impact on the welfare of the animals used for teaching at the school (such as environmental enhancements introduced after the project had taken place to alleviate boredom experienced in the animal living quarters previously described). The value and impact of arts-based research in a clinical and pedagogical setting was recognised by the School's director:

Working with *Fevered Sleep* has encouraged the veterinary scientists in the school (including me) to reconsider their relationship with animals. We have been able to temporarily park our anatomical/physiological understanding of animals and consider them as sentient beings with thoughts, desires and fears. We have been challenged to think differently and creatively.

Professor Chris Proudman, Head of the School of Veterinary Medicine, University of Surrey

After the completion of the first iteration of the project, I was asked by the curator of the exhibition, and Wellcome Library's Collection Development Archivist, to produce an archive entry on *Sheep Pig Goat*. This archive entry was procured specifically as an exemplar of practice research commissioned by Wellcome Collection so as to offer a counterpoint to the largely empirical, lab- or field-based research funded by Wellcome Trust. The curator and archivist in particular wanted to highlight that practice- or arts-based research is as rigorous and impactful as that conducted through more scientifically conventional, empirical means. *Sheep Pig Goat* in particular was chosen to represent this because of its distinctive multi- and interdisciplinary approach, and its methodological advances in terms of the roles of both human and non-human participants.

VII

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