



Holloway, Lewis and Morris, Carol (2014) Viewing animal bodies: truths, practical aesthetics and ethical considerability in UK livestock breeding. *Social and Cultural Geography*, 15 (1). pp. 1-22. ISSN 1470-1197

Access from the University of Nottingham repository:

<http://eprints.nottingham.ac.uk/47776/1/Holloway%20and%20Morris%20Viewing%20animal%20bodies%20Social%20and%20Cultural%20Geography%202014%20Green%20open%20access.pdf>

Copyright and reuse:

The Nottingham ePrints service makes this work by researchers of the University of Nottingham available open access under the following conditions.

This article is made available under the University of Nottingham End User licence and may be reused according to the conditions of the licence. For more details see: http://eprints.nottingham.ac.uk/end_user_agreement.pdf

A note on versions:

The version presented here may differ from the published version or from the version of record. If you wish to cite this item you are advised to consult the publisher's version. Please see the repository url above for details on accessing the published version and note that access may require a subscription.

For more information, please contact eprints@nottingham.ac.uk

**Viewing animal bodies: truths, practical aesthetics and ethical considerability
in UK livestock breeding.**

(authors' final version, published as: Holloway L and Morris C (2014) Viewing animal bodies: truths, practical aesthetics and ethical considerability in UK livestock breeding. *Social and Cultural Geography*. 15, 1, 1-22 (doi 10.1080/14649365.2013.851264))

Lewis Holloway¹, University of Hull, UK

Carol Morris², University of Nottingham, UK

¹ Corresponding author: Department of Geography, Environment and Earth Sciences, University of Hull, Cottingham Road, Hull, HU6 7RX. L.holloway@hull.ac.uk

² School of Geography, University of Nottingham, University Park, Nottingham, NG7 2RD. Carol.morris@nottingham.ac.uk

Abstract

This paper focuses on the production of aesthetic 'truths' in UK livestock breeding, drawing on detailed qualitative research with breeders and breed societies. It extends emerging interest in the aesthetic in human geographical research, examining how aesthetic judgements about nonhuman animals depend in part on the agency of the animal and their intersubjective relations with humans in specific places. Aesthetic evaluation further produces implicit judgements about animals' ethical considerability, at the same time obscuring the effects of such judgements on their framing and treatment. Aesthetic evaluation is thus related to sets of material and ethical interests., The paper develops a more-than-human reading of Foucault's

biopower which explores how truths about visual evaluations of animals become established. Two empirical perspectives explore first, a 'relational practical aesthetic' for evaluating beef cattle and sheep, exploring the implications of the aesthetic framing of specific animals, and second, the tensions involved in looking at animals when different aesthetic truths conflict, and when traditions of aesthetic evaluation encounter genetic modes of evaluation. The paper concludes by discussing the ethical implications of ongoing transformations of evaluative modes in livestock breeding, suggesting that shifts away from inter-subjective modes of aesthetic evaluation further diminish the ethical status of animals.

Key Words: livestock breeding, farming cultures, aesthetics, Foucault, biopower, UK.

Introduction.

This paper aims to explore aesthetic encounters between humans and animals, as part of a resurgent interest in aesthetics amongst human geographers (see Hawkins and Straughan 2013). Taking the example of farmed animals, the paper responds to arguments in this journal and elsewhere that we need to further study specific, proximate human-animal relationships (e.g. Fox 2006; McManus and Montoya 2012) and heterogeneous farming cultures (Morris and Evans 2004; Riley and Harvey 2007). Bringing these fields together, the paper explores the significance of the 'livingness' of farmed animals to the aesthetic judgements made about them, suggesting that encountering them as animal subjects, not simply as the objects of aesthetic judgements, makes a difference to how they are visually evaluated by

humans. In turn, these inter-subjective, relational aesthetic encounters have particular material and ethical implications. Our approach is important first, because it pays attention to a mode of aesthetic evaluation emergent from human-nonhuman encounters, and second, because it demonstrates how aesthetic evaluation is not rarified but is entangled with real ethical and material concerns.

Foucault's conception of biopower (e.g. 1990, 2003, 2007) is used to conceptualise the encounters we explore. Empirically, the paper refers to detailed qualitative research with UK breeders of a variety of breeds of beef cattle and sheep, and with the breed societies which promote their particular breeds and establish the often aesthetically-defined qualities which are expected in individual animals. The research initially aimed to examine the effects of the introduction of genetic techniques including Estimated Breeding Values (EBVs) and genetic markers for evaluating the quality or breeding 'potential' of livestock, focusing on how breeders' 'traditional' knowledge-practices, which drew heavily on visual evaluation, were changing as a result (see Holloway 2005; Holloway and Morris 2008; Morris and Holloway 2009; Holloway, Morris, Gilna and Gibbs 2009, 2011; Holloway and Morris 2012). To explore the effects of the emergence of these genetic techniques in UK livestock breeding we conducted in-depth research with representatives of 11 sheep and 10 beef cattle breed societies between May and July 2008. In the majority of cases these representatives were also breeders themselves. Interviews were also conducted with 25 further sheep and beef cattle breeders; where possible video recordings were made of breeders discussing their animals alongside the animals in fields or barns. Throughout, we focused on discussing breeding decisions, evaluation of individual animals and herds/flocks of animals, use of genetic

techniques, and evolving relationships between genetic and more 'traditional' visual modes of assessing animals. Despite the emphasis of the research on the transformation of livestock breeding by genetic techniques – something often described as 'revolutionary' by those involved – the continuing significance of visual, aesthetic modes of evaluating animals was clear and is worthy of the more sustained analysis developed in this paper.

Farmed animals have long been the subject of aesthetic appreciation. They are valued for their particular contribution to the aesthetics of agricultural landscapes and can act as important visual signifiers of geographical locality (Evans and Yarwood 1995). In these ways they may be seen as contributing to the formation of a longstanding romantic or pastoral gaze upon rural or farmed landscapes, a gaze associated with notions of the rural idyll which structure many visitors' appreciation of the countryside (Urry 1990, 1995). Beyond their contributory presence in landscapes, livestock can also be regarded as having an aesthetic appeal in themselves, particularly when washed, brushed and polished for the show ring. The recent publication of glossy books entitled *Beautiful Cows* (Porter 2010) and *Beautiful Sheep* (Dun 2008) illustrates how animals bred nominally for functional purposes can be rendered as aesthetically pleasing. Dun says that her book '... presents sheep as you've never seen them before – Beautiful Sheep – elegant and coiffured to perfection, ready for the catwalk. These are animals to be admired and enjoyed ... these humble animals are transformed into living works of art' (2008: 7).

For those actually involved in agriculture, as livestock breeders and farmers, the visual evaluation of livestock in the particular sites and spaces of the farm is a

practice which has further layers of interest and intricacy, while still centring around what is evident even in publications such as *Beautiful Sheep*: that there is a constant and complex interplay and relationship between these animals' functionality and aesthetic appeal (Theunissen 2012). In relation to agriculture more widely, Brady (2006) argues that its intimate, embodied, practical and creative engagement with the land produces a particular kind of aesthetic response to farmed landscapes, something widely shared between those who are and those who are not directly involved in farming. Matless (1998) too refers to the development of an aesthetic appreciation of agriculturally-improved landscapes. For Brady,

[R]ather than being opposed to the functional, aesthetics within agricultural landscapes sits alongside or is integrated within practical, productive activities which are not ordinarily or mainly aimed at an aesthetic effect. Indeed, the aesthetic response is in some cases an outcome of working the land, especially in the way working the land brings about a deeper engagement with natural processes and qualities, leading to a richer and more complex appreciation than a superficial encounter' (2006: 2).

This comment is highly resonant with the particular embodied, biological practices associated with livestock breeding, itself a specialised and skilled farming activity. Although anyone might experience an aesthetic response to a farmed animal, it is the particularly intense, and at least in part commercially-oriented, engagements with them experienced by breeders that produce the situated aesthetic encounters with them that interest us here.

From here, the paper first briefly outlines discussions of historical practices of livestock breeding, and the evident tensions between function and (particular senses

of) beauty. It then describes some wider debates surrounding the relationship between function and aesthetics, and sketches out our take on a heterogeneous or more-than-human biopower which can be brought into conceptual relationship with a sense of the aesthetic appreciation of farmed animals. We then turn to our empirical research and explore first, some of the layers of a 'relational practical aesthetic' register for evaluating beef cattle and sheep, and second, some of the tensions involved in looking at animals, both in terms of different sets of practical aesthetics and in terms of what happens when aesthetic appreciation of animal bodies meets ostensibly very different, genetic modes of evaluation. Concluding, we emphasise the continuing significance of a practical aesthetic mode of livestock evaluation, even as it enters into more recently emerging relationships with genetic evaluation. We suggest, drawing on our Foucauldian conceptual framework, that this demonstrates that different 'truths' about livestock quality are produced by different authoritative institutions, and that the locus of authority in evaluating animals bodies is shifting as genetic truths become increasingly influential and as aesthetic evaluation is called into question. The partly inter-subjective nature of human-animal aesthetic judgement is also called into question by these shifting truths, as they demand more distanced and distancing modes of evaluation. This, in turn, implies changes in livestock breeding practices and the situated ethics of human-nonhuman relationships in livestock breeding.

Function and beauty in livestock breeding

Several authors have discussed the historical persistence of tensions between an aesthetic evaluation of farmed animals and the demand for evaluative criteria which

are production-oriented, for example in terms of the amount or quality of meat and milk animals produce (see Holloway 2005). During the 18th and 19th centuries in the UK, for example, pedigree livestock breeding emerged as a particular set of practices associated with breeders' desires to 'improve' their animals and to establish named and recognisable 'breeds' that embodied particular, often visual but also productive, characteristics. Yet, there were well-documented debates between those who bred for 'the fancy', as it was termed, and commercially-oriented farmers who were often dismissive of the visual traits admired by (often wealthy, sometimes aristocratic) pedigree breeders (Derry 2003; Hudson 1972; Walton 1986; Ritvo 1987, 2010). For breeders of 'fancy' livestock, an aesthetic mode of evaluation became prevalent. The 19th century commentator James Dickson (1835-36, cited in Ritvo 1987: 56) expresses this perspective in writing of some cattle as 'irresistably attractive ... the exquisitely symmetrical form of the body ... bedecked with a skin of the richest hues ... ornamented with a small head [and] prominent mildly beaming eyes'. Ritvo herself writes that such animals became 'embodiments of beauty and elegance' (1987: 56), while for elite breeders, 'fancy' cattle could be 'valued as precious jewels, and the animals were bought and sold with that market in mind' (Derry 2003: 21). As Walton (1986) suggests, a focus on beauty often came at the cost of productive traits, and this could be associated with a politics of social status which divided elite breeders from mundane agricultural practice. As he puts it, 'fashion or fancy gained more than a toehold in the cattle trade because a sufficiently large number of breeders were sufficiently unconcerned about productivity performance to create a substantial market for pedigree stock based on fashion or fancy alone' (1986: 155).

The relationship – which may be one of complementarity or tension – between beauty and function is one which pervades wider philosophical discussions about aesthetic value. Although some arguments for an ‘aesthetic attitude’ have suggested that an object’s aesthetic value can be apprehended entirely independently of its utility, it has been more common to be sceptical of the possibility of entirely abandoning a simultaneously instrumentalist perspective on aesthetic attractiveness (see Janaway 1995).

More interesting, perhaps, is the argument from some theoretical perspectives that what counts as aesthetic value, and what comes to be seen as aesthetically attractive, has a history, rather than permanency and universality. Aesthetics are in addition conceived as bound into the politics associated with whatever is being evaluated (Yusoff 2010). Theunissen’s (2012) discussion of the history of dairy cow breeding in the Netherlands demonstrates this, suggesting that notions of the aesthetic were negotiated and changed by the contest between interest groups with different views about the development of dairy breeds. With reference to Foucault’s genealogical approaches to history, aesthetic appreciation is historically, socially, politically and, we might add, geographically, emergent, grounded and differentiated (Margolis 1995). Margolis (1995) suggests too that in a relational way the aesthetic qualities attributed to objects are affected by the *processes* of attribution, and that in turn these processes affect those who attribute qualities *and* other things being valued. In the case of livestock breeding, the implication here is that where and how animals are being judged (for example, in a show ring or via a photograph displayed on a computer terminal) will affect the judgement being made. Recursively, those doing the judging will similarly be affected, or co-constituted, by the processes of

judging, whether they are in the highly performative social context of the agricultural show or in the technologically-mediated space of the on-line breed society database. And finally, judgements made about one animal will affect simultaneous or future judgements of other animals in a relational aesthetic process.

Similar ideas about the historical and geographical emergence of particular aesthetic sensibilities have begun to be explored by geographers interested in aesthetics but wary of accusations that paying attention to aesthetics is an 'indulgence' which leads to neglect of important political and ethical questions (Matless 1997; Dixon, Hawkins and Straughan 2012). Matless' review of 'geoaesthetics' argues that, conversely, the aesthetic can be in very close relation with the ethical and political. As such, an understanding of aesthetic value can be key to thinking about how and why entities are produced in the way they are, and to the social and political relations they co-constitute. Matless (1997) points, for example, to the power relations implicit in claims to be able to make aesthetic judgements. We can see in this the power of the claims to truth that are at the heart of Rabinow and Rose's (2006) reading of (Foucauldian) biopower, something we return to below. Dixon (2009), drawing on Rancière's *The Politics of Aesthetics* (2007), similarly argues for the connectedness of politics and aesthetics.. Dixon points to the significance of aesthetics in how bodies are understood within regimes of biopower, suggesting that aesthetic judgements are important in the wider distribution of the power to discriminate over what can be seen and how it should be seen, to judge, to pass comment and determine 'truth', and to make happen. Referring to this as a 'grid of intelligibility' (Dixon 2009: 411), she again asserts how aesthetic appreciation of bodies should be seen as part of sets of complex relations

between (for example) science and capital. This is significant in directing our attention once more towards the interplay between commercial pressures, agricultural-scientific knowledges and individual breeder knowledge-practices which is key to livestock breeding and becomes associated with particular and contested modes of aesthetic evaluation of livestock bodies. In considering situations where aesthetic evaluations of bodies involve close, extended encounters between humans and nonhuman animals (for example, between humans and livestock or companion animals), however, there is more to be said. These encounters are between humans and living, fleshy, responsive nonhumans whose livingness is very much part of what is encountered and visually evaluated. They are thus in part inter-subjective. Aside from these animals' capacity to 'look back', the ways that they move, respond to the presence of humans and other nonhuman animals, and are represented by human observers as 'carrying themselves' or 'presenting themselves' in particular ways, become part of how a relational aesthetic evaluation happens in that the animal can be seen as an active participant in the evaluative moment. And yet for farmed animals in particular, their eventual 'use', their slaughter and consumption by humans, produces a tension between the possibilities of inter-subjective encounter and instrumentalising or functional appraisal which runs through the practices of aesthetic judgement concerning their bodies.

Taking this idea forward Emily Brady, in her work on the aesthetic evaluation of animals, develops arguments concerning the relationship between the aesthetic and the instrumental a little further by emphasising the importance of animals' expressive qualities to aesthetic evaluation. Brady (2009) argues that the aesthetic appeal of animals has been neglected by philosophers of aesthetics. She refers to Parsons'

(2007) comments that it is the *functionality* of animals' bodies which gives them beauty; for Parsons there is an 'internal relationship between function and beauty' (2007: 163), so that beauty emerges from a knowledge and appreciation of bodily functionality. Brady (2009) is critical of the way that this more objective, knowledge-based perspective on animal aesthetics disregards our emotional response to animals. She suggests that our ability to be affected by the expressive qualities of animals should also be regarded as a key part of our aesthetic judgements. This is not to disregard functionality as a source of aesthetic value, but instead to supplement it and enrich it with additional dimensions. She argues, then, for 'the importance of appreciating nature within the domain of the aesthetic, that is, where a wide range of qualities are significant in aesthetic appreciation, from the formal to the expressive, imaginative and, where contributing to aesthetic value or disvalue, the functional' (Brady 2009: 3).

Both Parsons and Brady are primarily concerned in their arguments with 'wild' animals and with 'nature'. Straightforward distinctions between the natural and the social are conceptually problematic (Latour 2004), and we do not want to suggest that 'wild' species have histories, geographies and biologies unaffected by human contact. However, in the case of animals which are the products of the intensive and long-term human social relationships of domestication (Anderson 1997) – such as companion and farmed animals – there is perhaps a slightly different emphasis or inflection in this bundle of 'sources' of aesthetic value – i.e. whether value is intrinsic or extrinsic, whether it is universal or particular, whether it resides in function or expressiveness. Functionality, for example, can be understood very differently when contrasting a 'wild' ovine, such as a mouflon, with a domesticated sheep. The

former's functionality relates strongly to its ability to survive and to breed, while the latter's is overlain with millennia of human interventions directing its body and bodily processes towards human ends. That is, the functionality is not only intrinsic to the animal, but is 'bred-in' and partly extrinsic in the animal's necessary relationships with humans. Our aesthetic appreciation of that functionality might thus be different, partly related to the human 'creative' or 'crafting' processes which have led to the domestic animal in front of us. Returning to the 19th century, Derry (2003: 14) refers to this in her argument that livestock breeders could see 'their work as creative, and they often explained the success of certain breeders in terms of their artistic vision'. Brady argues that 'domesticated animal breeds are clearly bred to meet both aesthetic and functional aims, and some animals have strong elements of "design" through selective breeding ...' (2009: 5). But in addition to the claim that breeding can have aesthetic aims, we suggest that the aesthetic evaluation of an animal is also in part a *product* of breeding for function, so that how farmed animals are aesthetically appreciated emerges in part from or is structured by a functionalist sensibility. A practical aesthetic sensibility is thus associated with the visual assessment of animals' 'quality', and with an apprehension of human ingenuity and mastery of domestic animals which is performed and celebrated at events such as agricultural shows (Anderson 2003; Holloway 2005). But while maintaining the importance of a sense of functionality, the aesthetic encounter with livestock is at the same time bound up with their expressive and inter-subjective qualities. These aesthetic encounters are thus relational in the way that the animal acts alongside the human in the process leading to aesthetic judgement.

The accounts of 'fancy' breeding discussed above, and the wider discussion of how animals become the subject of (and co-produce) aesthetic appreciation, indicate that definitions of aesthetic attractiveness in livestock can vary and be contested, but that at any time a more-or-less shared (if not universal) agreement about what is attractive emerges. This is true of other fields of aesthetic judgement too: a visual, aesthetic evaluation is reliant on sensibilities and knowledges presumed to be shared between those involved in commenting on and judging particular things. Rogoff (1998: 17) characterises this in terms highly resonant of the language used to describe looking at livestock, as the development of 'the good eye', a phrase Rose (2001: 54) suggests implies 'a way of looking ... that is not methodologically explicit but which nevertheless produces a specific way of describing', and which ascribes to viewers who possess it an ability to make judgements of the relative quality of what is being viewed. Hart (1979: 105), writing for a farming readership about livestock breeding and showing, confirms this rather elusive sense of a visual connoisseurship in writing that show judges 'must have "an eye for an animal" ... and know the difference between real quality and show condition'.

One way of approaching this idea of an evolving shared agreement about what is aesthetically pleasing in livestock is to consider it as an emergent truth concerning judgements about animals, a truth which is associated with an assumed authority possessed by some to make relative evaluations. We draw here on Rabinow and Rose's (2006) interpretation of Foucault's (1990, 2003, 2007) discussion of biopower as it emerged in late eighteenth century Western Europe (for more detail see Holloway, Morris, Gilna and Gibbs 2009; Holloway and Morris 2012). For Foucault, biopower relates to the fostering of the life of individuals and populations. It thus

consists of an anatamopolitics, which focuses on optimising the capacity of the individual body, and a biopolitics which focuses on steering the life processes of populations. Biopolitics in particular is associated with new understandings of and knowledges about populations. Populations become regarded and known in terms of processes which can be statistically defined (e.g. as birth and death rates) and which can be affected by economic, social and political interventions designed to alter them.

In their attempt to provide an analytical tool for assessing particular moments of biopower, Rabinow and Rose (2006) argue that there are three key axes to consider. The first is the construction of *truths* about life, tied to individuals or institutions constituted as authorities able to speak such truths. The second is the development of *interventions* designed to foster the life of individuals and populations, to guide its (re)production in particular directions. The third is *subjectification*, the production of individual human subjects whose thoughts and actions are aligned with truth, and who thus act in accordance with, and in doing so reproduce, truth. While Foucault's work focused on the fostering of human life, elsewhere (Holloway, Morris, Gilna and Gibbs 2009; Holloway and Morris 2012), we have developed an approach to biopower which goes beyond a focus on the fostering of *human* life to become a more heterogeneous conceptualisation which accounts for the co-fostering of human *and farmed animal* life (see also Shukin 2009; Twine 2010; Wolfe 2013). This more-than-human (Whatmore 2002) account of biopower is derived from an acknowledgement that the 'life' on which it is brought to bear can be measured and intervened in in similar ways, regardless of whether the subjects of biopower are human or nonhuman. In farming, the capacities of animal bodies and populations are

fostered for productivist ends, a process requiring continual qualitative and quantitative judgemental practices.

Although it is clearly problematic to see nonhuman animals as becoming subjectified in the same ways as humans are in Rabinow and Rose's schematic outline of biopower, as we discussed above farmed animals (along with other animals living in close, inter-subjective relationships with humans) participate in important ways in moments of aesthetic (and other) encounter, as they respond to human presence and move or 'present' their bodies in particular ways. It is in this sense that we refer to a heterogeneous or more-than-human biopower in which the entangled lives of humans and nonhuman animals co-produce aesthetic effects. We draw explicitly on Rabinow and Rose's conception of biopower in the analysis which follows. Our argument is that truths concerning the life of farmed animals (as individuals and populations) are produced as part of judgemental practices and encounters between humans and nonhuman animals, and lead towards particular sorts of intervention in the lives of animals which are associated with the subjectification of breeders so that they are more likely to act in accordance with such truths.

In relation to the aesthetics of livestock breeding then, we suggest that truths about evaluations of animals become established as particular authorities make judgements concerning what is good, aesthetically, about individual animals. The relevant authorities in this case might have been elite breeders in the nineteenth century, but are more likely to be established breed societies in the contemporary period. Interventions here consist in making breeding decisions which at least in part

take into account the desired appearance of future individual offspring and the breed population as a whole. Breeders themselves can be regarded as having been subjectified in the ways that they have learned about and experienced livestock breeding: for example by watching an authoritative judge at a livestock show comment on and discriminate between different animals on the basis of visual criteria which encapsulate the concept of practical aesthetics mentioned above.

Yet at the same time the power to speak truth, to intervene and to make subjects who will (literally) reproduce truth in the bodies of their animals, is uncertain and not inevitable. In the case of livestock breeding, for example, we can identify alternative truths, authorities, interventions and subjectifications associated with more recently emerging *genetic*, rather than 'traditional' visual, truths (Holloway and Morris 2008; Holloway, Morris, Gilna and Gibbs 2009). With regard to both visual and genetic truths, some breeders become seen as 'problematic individuals' because of their lack of conformity to established breed standards or their unwillingness to engage with the 'new' truths constructed by genetic science. The 'counter conduct' (Foucault 2007: 200; Holloway and Morris 2012; Nealon 2008) of these breeders points to the arbitrariness and fluidity of the truths surrounding how best to judge the quality of cattle and sheep. An additional complicating factor is that breeders should be regarded as participating in *inter*-subjective relations with their animals in ways which complicate aesthetic judgements made about inanimate objects, and which have particular material and ethical implications for the animals involved, as we discuss below.

Visual and genetic evaluation of farmed animals.

We turn now to the results of our empirical work with livestock breeders. The discussion is in two sections. First, we examine how the sort of relational practical aesthetic judgements described above occur in practice in livestock breeding. Here, we consider how breeders and breed society representatives discuss visual evaluation, conceptualising this in the terms deployed by Rabinow and Rose (2006) to frame their notion of biopower: truth, authority, intervention and subjectification. We suggest that the inter-subjectivity of these aesthetic evaluations is important to particular moments of judgement. Second, we look rather more briefly at tensions between practical aesthetic evaluation and demands for functionality, and at the increasing entanglement between practical aesthetic and genetic modes of evaluating animal bodies. Here we suggest that there are complex relationships between these different modes of evaluation, suggesting that in some instances they are complementary while in others they compete..

The relational practical aesthetics of evaluating beef cattle and sheep

A great tup [ram] has a presence, so you're looking for a lot of technical points, but then you're also, a lot of it's about character and style, and being beautiful I suppose. That's a funny word for a farmer to use, but yes it's partly about them being sort of beautiful, and proud, and stylish. (James Rebanks, sheep breeder, speaking on *On Your Farm*, BBC Radio 4, 26 May 2013. Authors' transcription).

In this section we outline some of the ways in which interviewees make sense, visually, of the quality of their animals. As Cumbrian Herdwick sheep breeder James Rebanks describes above, visual assessment in these situations negotiates between

practical or technical features contributing to animals' productivity, and an aesthetic sense of a beauty which is at least partly related to a perception that the animal 'proudly' presents itself to the observer. We begin by briefly drawing on evidence from some of our video recordings of breeders discussing their animals in the spaces of the field or barn, to emphasise the importance of visual assessment of animals and to begin to reveal what is being looked at and for. We refer here to the (gendered) concept of stockmanship which is used by breeders to denote a particular combination of knowledge and practice. Next, again emphasising the practicing of stockmanship, and to consider the inter-subjectivity which also emerges in these relationships, we explore some of the ways that animals are discussed, and present this in terms of what we have referred to as a practical aesthetic sensibility. Finally in this section we look at how particular ways of seeing become institutionalised through formal inspection processes.

Video recording captured the performance of stockmanship in the field or barn, as breeders discussed their animals. Just looking, was essential to this practice. The practising of stockmanship in these moments was associated with breeders' emergent subjectification as stockmen or stockwomen who, in visually evaluating 'real' animals, had the necessary connoisseurship. In one video recording, a breeder of Limousin cattle provided a rather prosaic description of a good young bull while leaning on a gate in his barn, saying that it had 'plenty of hindquarter, loin, length, clean-bellied'. Then, after a quiet and extended period of just looking over the gate at the animal, he added 'but some people can't see it ... sometimes people just see an animal and, you know ...'. His comment trailed away in the suggestion that for those who can't 'see', evaluating an animal is not possible.

This perspective was mirrored by the words of a sheep breeder, who spent time watching a large flock of (to us, indistinguishable) sheep moving around a field. Again after a period of just looking and pointing at animals, he said of one sheep, 'that's what I like'. The sense is obtained from this of an eye particularly attuned to the subtle visual clues provided by this animal's body and movement, contributing to an assessment of its quality as far as the breeder is concerned.

Going into a bit more detail, another cattle breeder discussed his breeding decisions while viewing a group of cows and a bull together in his yard. This moment emphasised the visual assessment of different animals in relation to each other and to other animals not actually present in the yard. What is actually seen, and what is known about these different animals is difficult to capture in what was actually said, and goes perhaps beyond language into the realm of nonrepresentational affect. But yet the breeder's comments suggest something of how his looking ('in my eyes'), and a practical aesthetic judgement, informs breeding practices.

This cow here ... in my eyes, she's one hell of a cow, but she's, if anything, with my type of bull on her you get a lovely calf ... That's really my type of cow but you want a little bit different type of bull on it. You'd stand a stretchier, not an extreme type, of bull on her ... [She's] a good cow to look at, but there's something about her that doesn't do, she'll only have a good average calf.

The term 'type' as used here is a common word used by breeders and breed societies to sum up the characteristics of an entire animal. Similarly, the notion of an

animal 'doing' is commonly used to suggest something of how it performs in terms of productivity, whether that is in gaining weight, producing milk or rearing its young: an animal may 'do well', or not.

What we take from this evidence, and it is supported by our wider experience of spending time with breeders and their animals, is the simple importance of looking, and looking, and looking, at animals. These animals are visually weighed up as individuals and, constantly, relationally. First, in relation to one another (for example in looking at a group of cows or young bulls and making direct comparison); second, in relation to potential breeding partners (in terms of thinking which bull and which cow, for example, to mate together); and third, in relation to an ideal future generation of animals. But further, what is emphasised, is that this looking is a specialist practice – 'some people can't see it'. A key concept here is that of the 'stockman's eye'. This term is used to suggest a specialist, tacit, experiential visual knowledge of animals. It is implied that this visual knowledge, whether it is innate or acquired, is necessary for livestock breeding. Those who *can* 'see it' are thus able to perceive certain practical-aesthetic truths about animals and to make the required breeding interventions to ensure future generations of animals that can be conceived of as embodying those truths. Subjectification, as in *learning* to be able to see in this way, is something that occurs via a long term immersion in the cultures and practices of livestock breeding. There is also a sense here, however, of visual knowledge only being part of the story. The final comment hints at this in the breeder's knowing that the cow which is good to look at will only produce an average, rather than an excellent, calf. As Ritvo (2010) argues, not everything is amenable to visual apprehension, and the breeding potential of an animal might also be known from

other perspectives such as its pedigree (and, as we see below, via genetic techniques).

Turning to data from interviews with breeders and breed society representatives reveals a wider lexicon for visually describing animals. In recounting how they look at animals as a way of evaluating them, for example, breeders said that they found certain animals 'striking' or 'arresting', that they possessed 'beauty' or purity. It is during these moments of evaluation that inter-subjectivity is involved, along with a recognition of the animal's agency in the co-production of aesthetic effect.

Acknowledging the relationality of more-than-human moments of evaluation is important in retaining the perspective that what is being viewed is living and able to actively participate, albeit unintentionally, in how it is seen. Discussing his appraisal of sheep in a show ring, a special site for the performance of visual evaluation, a breeder referred to those special animals that, when observed, have an 'absolute power' in how they grab the attention, and said that such animals tend to go on to sell for high prices. Along with the animal's ability to attract attention, the 'stockman's eye' is a key concept. As the following comments from a cattle breeder suggest, acquiring this is part of the subjectification of the stockperson.

... the way that stockpeople are in the UK, especially up here, especially in Scotland, they pride themselves on being the stockman. It's still the eye, even the younger generation, there is still something we've all learned since we were kids. You're born, you're brought up on a farm, you go to bull sales, you go to sheep sales ...

The 'stockman's eye' is clearly something possessed by an individual, yet it exists in part through their association with a second, more institutionalised notion in the visual appreciation of livestock, which is 'breed standard' or 'breed character', a quality often described in aesthetic terms. The concept of breed standard has emerged as a way of distinguishing a particular breed, and for many breed societies has become part of a formal, written definition of what an ideal representative animal of a particular breed should look like. It is thus part of the establishment of the 'truth' of the existence and 'special' characteristics of a breed on the part of an authority (the breed society). It is a truth performed, for example, in the sites of the show ring and auction market. That such a truth needs to be established through the work of the society is evidence that breeds are material-semiotic constructions rather than naturally-occurring categories, emerging from several centuries of regulated breeding and close recording of family relationships, and exclusions of those animals which do not fit the required standard.

Yet breeds need to be defined, secured and policed in order to protect the value that inheres in the status of the 'pedigree animal' registered as a legitimate, 'pure' member of the breed society's herd- or flock book. There are parallels here with Lulka's (2009) discussion of the tension between the search to establish and sustain 'form' in dog breeding, and the entropic tendency towards a 'formlessness' in which breeds lose distinctiveness and become mongrelised. For cattle and sheep, as for dogs, aesthetic qualities are a key determinant of the form of particular breeds, and as such are closely policed in the ongoing process of maintaining and protecting breed identity. It is in this context that seemingly trivial matters such as ear shape and colour become important and are established as key determining criteria for

breed population characteristics and applied in aesthetic judgements made about individual animals.

How animals' visual appearance is described is thus crucial as it provides a shorthand for establishing breed membership. Such descriptions can be quite subjective and tied to a more inter-subjective relationship between humans and animals, reflected in the use of generic terms such as a cow's 'femininity' or a ram's 'masculinity'. A more overtly aesthetic dimension is also commonly present in the way that a 'good animal' becomes defined. In many breeds a key part of this is simply colour, with correct colouration being essential in marking the animal as a legitimate member of a breed and those that deviate being excluded from membership. As one breed society representative said, 'If there is any visual sign that doesn't look like a [breed name], for example if it's got white on its face or something like that, then they aren't allowed in ... anything that is a bit untoward, then it is not worth the risk really'. Again, here, this sense of something being vaguely 'untoward' expresses the nature of an aesthetic judgement that is tacit, not amenable to expression in language. Here, however, there is an apparent shift away from inter-subjectivity as part of aesthetic evaluation. Instead, a gap between the observing human and the observed animal is produced. The animal is reduced to an observed object, whose aesthetic qualities are detached from any sense of their ability to 'present' themselves or be in inter-subjective relation with the observer. The animal can, as a result of the judgement, be subject to decisions which profoundly affect their life: for example whether they are 'retained' for breeding or reared for slaughter. The distancing effect of this mode of aesthetic judgement might make

livestock more 'killable', in Haraway's (2008) terms, as the inter-subjective relationality of aesthetic judgement of livestock is played down.

This more distanced aesthetic notion of breed character goes beyond colour to include a wider bodily apprehension of the animal. The example below illustrates. This description of breed type was made in relation to a sheep breed. The breeder said that,

... you want this big muscle, well big muscle is there commercially for a larger intake of food etc, a big nostril to let air into its lungs, and they want, which is probably fashion now, a flattish head ... and very good hair. There is an association between good hair and good milking ability, that's what the breeders tend to think, so they want nice shiny, silky hair, and the horn must come out from the head, so it is not going to do any damage [...] But I mean anybody that is not involved in the breed would be very surprised when going to a top sale, when they see one that might make twenty thousand and one might make five hundred pounds, and don't see much difference between them. But to the breeder, the breeder is looking into a lot of the background of the sheep, and also this very special bit of breed character, that is going to make it a lot of money

In this comment, there are clear associations drawn between some of the desired visual characteristics (alongside other sensual and haptic qualities which suggest an emergent, multi-dimensional aesthetic sensitivity towards animals) and practical qualities, producing a mode of practical aesthetic evaluation of individual animals tied to commercial farming demands. It is worth noting here too the reference to fashionability, suggestive of how the way truth is constructed in relation to these sheep varies over time, and implying the continual subjectification of breeders with

regards to how and what they see in their animals. This is confirmed in a comment from the representative of another sheep breed society, who said that,

If you see a picture of the [breed name] at the Highland Show seventy years ago, it is markedly different from one today. Now that has happened purely on selection of visual criteria for the market place. We, back in the fifties, men wanted the [breed name] to have bigger ears, because when you put a pen of lambs in the ring and they've got their ears up and they are looking bright and alert, they make more money than lambs with their ears down here, and that was why the ear was developed on the [breed name].

What is desired in terms of breed 'character', something with a strongly aesthetic dimension, is thus variable, requiring that breeding interventions take on different inflections in the search for what is seen as a 'good animal' (Morris and Holloway 2013). The breeder again emphasises that to the 'outsider', the sheep appear similar, yet to those with the practised eye, the right 'character' can add significant financial value to an animal when combined with the right pedigree 'background'. Finally here, it can be noted that inter-subjective qualities, the particular ability of these nonhuman animals to actively participate in their presentation to the observer, are important to the aesthetic judgements made about them even in situations which seem to rely on the deployment of a formalised, scripted set of descriptive qualities. The recognition of animals' expressive qualities and ability to actively present themselves as bright and alert, even where this is unintentional, is a contribution to how they are seen, and emerges through the description of how observation happens and how aesthetic judgements are made.

An emergent practical aesthetics, combined with a sense of how animals present themselves for viewing, is similarly evident in other examples. The following comment from a beef cattle society representative hints at a sense of aesthetic balance and unity in the body of the good animal.

You want an animal that is a complete animal. You don't want a bit of this one and bit of that one ... I mean, it all goes together to make one. You want the animal to hold itself together nicely in a nice shape.

And in the next comment, a different beef cattle society representative emphasises the relational nature of practical aesthetic judgements in discussing how selecting a bull takes into account the intention of producing 'perfect' future generations from the particular cows with which he will be bred.

... in most pedigree breeders there's a drive, you are looking for something ... you want to have a physical appearance of the breed character and the continuity [across generations] ... I mean the [breed] head is so distinct. The [breed] head, with the polled head and with this sort of thing, you are looking for that head, you're looking for a big body, good conformation, good legs, good locomotion, good hair, good everything, all these little things. You tend to have to buy in bits and pieces, you know, you've got to get the perfect animal and you've got to look at your females at home and think, well, I need to buy something that fits to give me that.

In both comments there is a sense of an emergent, relational, practical aesthetic which consists of an appraisal of a number of distinct, subjectively assessed but corporeal features (conformation, hair, legs etc) along with first, judgement against a more abstract, but nevertheless embodied, notion of breed character and

distinctiveness, and second, an interaction with the animal that is dependent on its livingness, the expressiveness of its movement, its holding itself together, and its ineffable sense of 'character'. The emergent practical aesthetics here is thus relational, and partly to do with *how* animals participate in moments of evaluation

The final point that we want to make in this section relates to the formalised processes of inspection that many breed societies have, and which act to cement the sorts of qualities mentioned in the comment above into the breed as a distinctive assemblage of animals. Inspection also, however, includes a practical-aesthetic assessment of the animal's overall visual presence (referred to often as cosmetics), judged against an ideal of breed character established in breed society documentation. Inspection is used to make decisions about which animals can be formally included as members of a breed, and which can thus become the parents of future generations. The example here comes from the representative of a sheep breed society.

We have a proper ram inspection and we have a serious ram inspector who goes around the country and fails a lot of rams. They are selected on conformation, of course, structure, cosmetics, all sorts of things ... there are only so many that can be said to be, you know, a proper [breed name] ram. Now, there'll be lots of people who have perfectly respectable looking rams, but they will be mismarked or they'll have slight dips behind the shoulder, or perhaps the teeth aren't quite right, or whatever ...

Our argument here is that truth and authority are reproduced through these inspection processes, crucially affecting both breeding interventions (i.e. the selection of animals for breeding) and the subjectification of breeders as they are

encouraged to select for or against particular characteristics. The breeder's 'eye' is formed in part through these processes of inspection, in terms of learning how to see, appreciate and evaluate a particular practical aesthetic in the animals being judged. Although this visual truth does change, as acknowledged in references to fashion for example, the authority of the breed society to establish particular truths about animals is continually confirmed through the rounds of inspection, judgement and selection (and deselection, see Holloway, Morris, Gilna and Gibbs 2011) which in turn (re)produce the corporeal 'truth' of the breed in the bodies of each generation of animals.

Aesthetic, commercial and genetic evaluation: tensions in looking

In this second empirical section, we briefly turn our attention to two sources of tension pertaining to the practical-aesthetic mode of evaluating livestock. First, as we mentioned earlier in the paper, tensions persist between aesthetic evaluation (still seen as the pursuit of fancy or fashion) and purely commercial considerations, despite how, as we saw above, for many breeders there are actually associations between aesthetics and commercial characteristics, hence our use of the term 'practical aesthetics'. Second, and related, there are more recently emerging tensions between visual assessment and genetic evaluation techniques such as EBVs. We look at each in turn, and suggest in conclusion that they are both associated with de-subjectifying tendencies in evaluating livestock animals. That is, that they both tend to shift away from allowing animals' 'presenting' of themselves as part of a relational process of evaluation, towards a more deliberately rationalised and modernised mode of 'seeing' the animal.

Our interviews with contemporary livestock breeders produced comments which resonated with the arguments of Walton (1986), Ritvo (1987) and Derry (2003) concerning the tension between visual and commercial considerations during the eighteenth and nineteenth centuries. The following comments, each made by a different sheep breed society representative, illustrate how this tension is being played out.

But this is the argument within the industry of showing ... [name] for years has been saying that you should throw away the show ring because you are analysing the wrong things, you're looking for beauty rather than production

We feel that a lot of the things that you select for showing purposes are irrelevant, and sometimes contradictory to commercial needs ... we select on horns, for the colour of their nose or the size of their ears and things that are not relevant at all, but it is very important in the show ring

... up until the mid nineties, I suppose, the [breed name], certainly the show [breed name] was going for power, bigger boned, stronger head and by doing that they were actually losing the carcass and forgetting that the main job of the [breed name] is a meat breed ... I think people as a whole realise it was getting a bit silly and have toned it back now ...

The comments illustrate a clear sense of a gap between a 'truth' concerning aesthetic perfection (particularly in the show ring) and other 'truths' concerning production-oriented qualities. The speakers discuss how in some ways they (and their breeds and breed societies) become torn between show- and production-orientation. This arises because there can be in fact two 'commercial' markets as far

as the pedigree breeder is concerned: one can breed for the high value 'fancy' market or for the productive market. Indeed, one breeder said that in his sheep breed there is no productivity value in colour, but that he can sell lambs with grey faces for more than those with white faces, although they are otherwise the same. He gains economically from that, then. But the purchaser doesn't gain any additional value from the lambs, because he's selling to the abattoir where no value attaches merely to colour. Established aesthetic 'truths' about colour, even where colour makes no real difference to animals' productivity, can thus strongly influence commercial markets and hence breeding decisions. Seeing this sort of situation as absurd, a beef cattle breeder reflected that this was 'pathetic really, farmers are very good at hanging over gates, chatting about sort of whether they have got the right coloured ears or tips or something ...', to the neglect of what he viewed as the productive qualities which ought to be fostered.

Turning to our second source of tension, attempts to implement genetic modes of evaluation can cause friction with practical-aesthetic traditions of judging livestock. Since we have discussed this in depth elsewhere (Holloway 2005; Holloway, Morris, Gilna and Gibbs 2009; Holloway and Morris 2012) we are brief here. Genetic techniques such as EBVs and genetic markers are often presented as superseding traditions of visual assessment of animal bodies, replacing a practical aesthetic sense of the whole animal with 'objective' statistical measurements of commercially valuable traits. An important implication here is a shift in the geography of evaluation, away from sites on the farm (the barn or field) and into a network of institutions which process data collected from farms, the results of which can be accessed by breeders from their computer terminals. Simultaneously, there is a redistribution of the

authority to determine truths about how to evaluate the quality of animal bodies, a shift away from the breeder (and indeed from the breed society) and towards institutions processing and interpreting data for consumption by breeders. Yet, the research suggested that the replacement of aesthetic appraisal by genetic evaluation was not simple, uncontested or inevitable. Instead, complex entanglements of visual and genetic knowledge-practices were emerging, in quite different ways in different circumstances, and there was a strong sense of the persistence of an aesthetic appreciation of animals' bodily forms, expressive qualities and movements.

For some breeders, following the logic of one of the commentators above, it had become possible to argue that visual assessment should be abandoned in favour of genetic assessments only. One beef cattle breeder asserted as much in saying

I will be quite honest, I don't think anybody looking into the future in the beef industry ... you can't go forward without knowing the genes, the genetics. I mean just to go on appearance and colour I think is a joke.

This is quite an extreme position however, and most breeders attempt to negotiate or compromise between practical aesthetic evaluation and what they are told by 'the figures' – the EBV and/or genetic marker data which they increasingly have available. EBVs indicate, in theory, a set of specific genetic characteristics that will be passed on to offspring; these tend to relate to quantifiable, productivity-oriented factors. The tension arises where the EBV data, which might indicate superiority or inferiority in certain but very specific regards, conflicts with what the breeder 'sees' in the *whole* animal as it presents itself to him/her, and which can tell him/her about its

'character' and potential contribution to a breeding programme. Different notions of 'the good animal' can be constructed through considerations of either 'the figures' or practical aesthetic looking, as the following comments from beef cattle breed society representatives indicate.

... you may get these figures as good and then you get there and he has a long plain face, which you absolutely hate, and you wouldn't buy that ... So breed character, you have got to have.

'[Breeders] still like to see a good head on a bull that's got character and has a good top line ... they've got to be correct and functional. So these [EBVs] don't measure functionality. They just measure what's under the skin, you know. So you need this as well as the visual assessment of a bull.

As the second of these comments implies, it is not necessarily the case that EBVs and practical aesthetic judgment must conflict. In some cases they are complementary, simply telling the breeder different things, from different perspectives, about the body and breeding potential of the animal they are appraising. Pointing to the potential for both complementarity and tension, one sheep breeder explained, 'I always try to make my best show animals, my best recorded animals. I've been quite lucky in that I've just about managed that, but invariably most people will find their best recorded animal's an ugly brute'

Conclusions

We draw several conclusions from the foregoing discussion. First, relational practical forms of aesthetic evaluation are evident in relation to livestock breeding. This

aesthetics is heterogeneous and in flux (as 'fashion' or market demands change, for example), but constantly has to negotiate between 'fancy' and 'productive' traits. Although aesthetics has been relatively neglected by geographers, not paying attention to the aesthetic in thinking about situations in which humans and nonhuman animals encounter each other would mean that we miss something vital to how their relationships are constructed. The paper's analysis of the empirical example presented here thus has wider relevance. In the case examined in this paper, aesthetic judgements are important to the ethical relations between humans and farmed animals and to how individual animals are regarded and treated. These particular aesthetic judgements are, importantly, more-than-human in that they are co-produced by the humans and animals involved and in that the 'livingness' of farm livestock is a crucial part of how they are seen and evaluated.

Second, in spite of the advent of genetic techniques, and of their heavy promotion within the industry by powerful state and commercial institutions, practical aesthetic evaluation endures and is still of key significance to many, perhaps most, breeders in their breeding decisions. And third, following from this, what happens in practice is that a set of relationships is worked out between practical aesthetic and genetic (and other) modes of evaluation. These relationships, like practical aesthetics, are heterogeneous and in flux, but add to the story of an ever emergent mode of practical aesthetic evaluation in livestock breeding. They are associated with a changing geography of breeding practices. New sites of evaluation have become important for example, so that breeding decisions increasingly take account of online sources of genetic information alongside sites in which animal bodies are visually evaluated (e.g. show rings or farm yards), recorded and legitimised as

members of a particular breed (e.g. within the pages of breed societies' herd books or flock books) or given value in other ways (e.g. veterinary certification of health or fertility). Practical aesthetic evaluation in this way becomes tangled up with a wider geographical, material and virtual network of breeders, animals, institutions, information and expertise, co-producing multi-layered evaluations of individual animals, herd and breed populations, and envisaged future generations of livestock.

More-than-human, relational practical aesthetics are not separate from the worldly practices of livestock breeding and the use of animals, but enter into the politics and ethics of these practices as judgements are made about the quality of animals. For example, the politics of breed societies consists in part of debates concerning if or how a breed should be 'improved' in response to market demands, with implications for breeding interventions and the subjectification of breeders. Further, ways of discussing farmed animals (perhaps in particular those which *fail* to meet the required standards, see Holloway, Morris, Gilna and Gibbs 2011) have implications for how those animals are treated and used, for example whether they enter the breeding herd or the food chain. There is a geography to this: moments of evaluation occur in particular farm spaces (e.g. barns and fields), and with reference to other spaces (e.g. show rings, auction markets, abattoirs and even supermarkets). As such, practical aesthetic judgements are spatially situated, and also situated within the networks through which farmed animals move as they are reared, sold, exhibited, slaughtered and consumed.

In considering the ethical implications of these points, several issues are important. The very real consequences for farmed animals of how they are judged is

perhaps obscured by aesthetic language. Aesthetic judgements are part of power and truth relations, and may justify the life and death decisions that are made about animals, making some animals more killable at the same time as according value to others. Apparent differences in ethical considerability open up as these aesthetic judgements are made, with those animals presenting themselves and evaluated as aesthetically pleasing accorded higher ethical status than those which are aesthetically disregarded. Simplistically, shifts towards commercial and genetic evaluation, as seen in the second of the paper's empirical sections, further reduce ethical considerability by an overt objectification of animals as collections of commercial and genetic qualities. Yet, how these human-nonhuman relationships play out might be seen in terms of parallel moves, both of which are differently reductive of animals. We have described a *relational* practical aesthetics, in which nonhuman subjectivity plays a role and is frequently acknowledged by those humans who are evaluating animals, but which, as we have suggested, can in effect obscure or justify the greater killability of some groups of animals. Commercial and genetic modes of evaluation, in their focus on quantitative measurements and the presence of genetic material, are more overt about the life-and-death effects of judgements on animals, but deny (or ignore) subjectivity from the start. These modes enframe animals as collections of productive and genetic resources (Wolfe, 2013). For example, the recent UK report *Feeding the Future* (Technology Strategy Board, 2013, p.8), argues that livestock breeding should 'identify and manipulate relevant traits and their genetic drivers, rather than emphasising specific breed improvement'. In both cases then, the end effect is to render animals more killable, an effect which is in tension with the persistence of proximate, inter-subjective human-nonhuman relations in livestock breeding (e.g. Wilkie, 2010).

Finally, in relation to our conceptual framing of livestock breeding, that of biopower and in particular its framing by Rabinow and Rose (2006), the discussion above suggests that there are alternative truths and different authorities related to livestock breeding, allied to different modes of intervention and of subjectification and to the way in which biopower articulates a population level biopolitics and an individual level anatamopolitics. Biopolitically, for example, there seems to be a population-level ethics concerning the 'right' way to breed animals, which is associated with the establishment within breed societies of certain (aesthetic and other) truths about what is good for a breed and how breeding should progress. Anatamopolitically, however, ethical concerns related to the close proximity entailed by specific moments of aesthetic evaluation work at the individual level and concern the recognition of animals' subjectivity. In these one-to-one, literally face-to-face encounters between human and cow or sheep, inter-subjectivity and the human-nonhuman co-production of the aesthetic moment articulate with truths about populations in ways that produce breeders and animals as subjects in two ways: first in their inter-subjective relations with each other, and second in their mutual subjectification in relation to established truths about 'good' breeding.

Traditionally, practical aesthetic truths about the quality of particular animals and whole breeds have been constructed by authoritative breed societies, and individual breeders have based their breeding interventions on what such truths indicate are 'good' animals. Breeders are subjectified through the formation of their longer term experiential knowledges, which involve an immersion in cultures of livestock breeding and showing and their associated spatialities. This doesn't preclude

change, as we have seen, as particular fashions take hold and changes to the picture of the ideal animal lead to changes in breeding objectives. Similarly, different truths pertain to the visual evaluation of what are seen as either 'show' or 'commercial' characteristics. The advent of genetic techniques in livestock breeding provides the potential for new kinds of breeding interventions and new breeder subjectivities, associated with 'genetic truths' and with the authority of those institutions, including some breed societies, which have most fully engaged with them (Holloway, Morris, Gilna and Gibbs 2009). The analysis herein has opposed (or distinguished) a relational practical aesthetics of livestock with these genetic techniques. However, as some have suggested, although technologies such as those associated with genetic understandings of the body can be seen as disruptive of traditional aesthetic practices, they can also be seen as configuring alternative modes of affective and emotional engagement with the world (e.g. Dixon and Whitehead, 2008). Future research might thus explore whether genetic techniques are associated in themselves with aesthetic judgements (an 'aesthetics of genetics' perhaps); that is, can data sets and representations of genetic 'breeding value' have a beauty of their own, and can their entanglements with visual evaluation produce different modes of practical aesthetic sensibility towards and with animal subjects?

Acknowledgements

Research for this paper was funded by the Economic and Social Research Council as part of a project entitled 'Genetics, genomics and genetic modification in agriculture: emerging knowledge-practices in making and managing farm livestock' (RES-062-23-0642). We thank Ben Gilna for his contribution to the empirical research for this project. The paper was developed from a chapter written as part of

a collection edited by Harriet Hawkins and Elizabeth Straughan called *Geographical Aesthetics: Imagining Space, Staging Encounters*. We thank them, and two anonymous reviewers, for their helpful comments on earlier versions of this work.

References

Anderson, K. (1997) A walk on the wild side: a critical geography of domestication, *Progress in Human Geography* 21: 463-485.

Anderson, K. (2003) White natures: Sydney's Royal Agricultural Show in post-humanist perspective, *Transactions, Institute of British Geographers* 28: 422-441.

Brady, E. (2006) The aesthetics of agricultural landscapes and the relationship between humans and nature, *Ethics, Policy and Environment* 9: 1-19.

Brady, E. (2009) Aesthetic appreciation of expressive qualities in animals, *Postgraduate Journal of Aesthetics* 6: 1-14.

Derry, M. (2003) *Bred for Perfection: Shorthorn Cattle, Collies and Arabian Horses Since 1800*. Baltimore MD: Johns Hopkins University Press.

Dixon, D. (2009) Creating the semi-living: on politics, aesthetics and the more-than-human, *Transactions, Institute of British Geographers* 34: 411-425.

- Dixon, D., Hawkins, H. and Straughan, E. (2012) Of human birds and living rocks: remaking aesthetics for post-human worlds, *Dialogues in Human Geography* 2: 249-270.
- Dixon, D. and Whitehead, M. (2008) Technological trajectories: old and new dialogues in geography and technology studies, *Social and Cultural Geography* 9: 601-611.
- Dun, K. (2008) *Beautiful Sheep*. London: Frances Lincoln Ltd.
- Evans, N. and Yarwood, R. (1995) Livestock and landscape, *Landscape Research* 20: 141-146.
- Foucault, M. (1990) *The History of Sexuality, Volume 1: An Introduction*. Harmondsworth: Penguin.
- Foucault, M. (2003) *Society Must Be Defended*. Harmondsworth: Penguin.
- Foucault, M. (2007) *Security, Territory, Population*. Basingstoke: Palgrave Macmillan.
- Fox, R. (2006) Animal behaviours, post human lives: everyday negotiations of the animal-human divide in pet-keeping, *Social and Cultural Geography* 7: 525-537.

Haraway, D. (2008) *When Species Meet*. Minneapolis, MN: University of Minnesota Press.

Hart, E. (1979) *Showing Livestock*. Newton Abbot, Devon: David and Charles.

Hawkins, H. and Straughan, E. (2013) (eds.) *Geographical Aesthetics: Imagining Space, Staging Encounters*. Farnham: Ashgate.

Holloway, L. (2005) Aesthetics, genetics and evaluating animal bodies: locating and displacing cattle on show and in figures, *Environment and Planning D: Society and Space* 23: 883-902.

Holloway, L. and Morris, C. (2008) Boosted bodies: genetic techniques, domestic livestock bodies and complex representations of life. *Geoforum* 39: 1709-1720.

Holloway, L. and Morris, C. (2012) Contesting genetic knowledge-practices in livestock breeding: biopower, biosocial collectivities and heterogeneous resistances, *Environment and Planning D: Society and Space* 30: 60-77.

Holloway, L., Morris, C., Gilna, B. and Gibbs, D. (2009) Biopower, genetics and livestock breeding: (re)constituting animal populations and heterogeneous biosocial collectivities, *Transactions, Institute of British Geographers* 34: 394-407.

Holloway, L., Morris, C., Gilna, B. and Gibbs, D. (2011) Choosing and rejecting cattle and sheep: changing discourses and practices of (de)selection in pedigree livestock breeding, *Agriculture and Human Values* 28: 533-547.

Hudson, K. (1972) *Patriotism with Profit: British Agricultural Societies in the Eighteenth and Nineteenth Centuries*. London: Hugh Evelyn.

Janaway, C. (1995) Aesthetic attitude, in Honderich, T. (ed.) *The Oxford Companion to Philosophy*. Oxford University Press, Oxford, p.8.

Latour, B. (2004) *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge MA: Harvard University Press.

Lulka, D. (2009) Form and formlessness: the spatiocorporeal politics of the American Kennel Club, *Environment and Planning D: Society and Space* 27: 531-553.

Margolis, J. (1995) Aesthetics, history of, in Honderich, T. (ed.) *The Oxford Companion to Philosophy*. Oxford University Press, Oxford, pp. 9-13.

Matless, D. (1997) The geographical self, the nature of the social and geoaesthetics: work in social and cultural geography 1996, *Progress in Human Geography* 21: 393-405.

Matless, D. (1998) *Landscape and Englishness*. London: Reaktion.

- McManus, P. and Montoya, D. (2012) Toward new understandings of human-animal relationships in sport: A study of Australian jumps racing, *Social and Cultural Geography* 13: 399-420.
- Morris, C. and Evans, N. (2004) Agricultural turns, geographical turns: retrospect and prospect, *Journal of Rural Studies* 20: 95-111
- Morris, C. and Holloway, L. (2009) Genetic technologies and the transformation of geographies of UK livestock agriculture: a research agenda, *Progress in Human Geography* 33: 313-333.
- Morris, C. and Holloway, L. (2013) Genetics and livestock breeding in the UK: co-constructing technologies and heterogeneous biosocial collectivities. *Journal of Rural Studies* forthcoming
- Nealon, J. (2008) *Foucault Beyond Foucault: Power and its Intensifications Since 1984*. Stanford CA: Stanford University Press.
- Parsons, G. (2007) The aesthetic value of animals, *Environmental Ethics* 29: 151-169.
- Porter, V. (2010) *Beautiful Cows*. London: Frances Lincoln Ltd.
- Rabinow, P. and Rose, N. (2006) Biopower Today. *Biosocieties* 1: 195-217.

- Rancière, J. (2007) *The Politics of Aesthetics* (trans. G. Rockhill). London, Continuum.
- Riley, M. And Harvey, D. (2007) Oral histories, farm practice and uncovering meaning in the countryside, *Social and Cultural Geography* 8: 391-415
- Ritvo, H. (1987) *The Animal Estate: The English and Other Creatures in the Victorian Age*. Cambridge MA: Harvard University Press.
- Ritvo, H. (2010) *Noble Cows and Hybrid Zebras: Essays on Animals and History*. London: University of Virginia Press.
- Rogoff, I. (1998) Studying visual culture, in Mirzoeff, N. (ed.) *The Visual Culture Reader*. Routledge, London, pp. 14-26.
- Rose, G. (2001) *Visual Methodologies*. London: Sage.
- Shukin, N. (2009) *Animal Capital: Rendering life in biopolitical times*. London, University of Minnesota Press.
- Technology Strategy Board (2013) *Feeding the Future: Innovation requirements for primary food production in the UK to 2030*. Swindon, Technology Strategy Board.

Theunissen, B. (2012) Breeding for nobility or for production? Cultures of dairy cattle breeding in the Netherlands, 1945-1995, *Isis* 103: 278-309

Twine, R. (2010) *Animals as Biotechnology: ethics, sustainability and critical animal studies*. London, Earthscan.

Urry, J. (1990) *The Tourist Gaze*. London: Sage.

Urry, J. (1995) *Consuming Places*. London: Sage.

Walton, J. (1986) Pedigree and productivity in the British and North American cattle kingdoms before 1930, *Journal of Historical Geography* 25: 441-462.

Whatmore, S. (2002) *Hybrid Geographies*. London: Sage.

Wilkie, R. (2010) *Livestock/Deadstock: Working with farm animals from birth to slaughter*. Philadelphia: Temple University Press.

Wolfe, C. (2013) *Before the Law: Humans and other animals in a biopolitical frame*. Chicago: University of Chicago Press.

Yusoff, K. (2010) Biopolitical economies and the political aesthetics of climate change. *Theory, Culture and Society* 27: 73-99.

