

ROUNDTABLE

Shaping the Equine Body

Kristen Guest

Monica Mattfeld

Karen Raber

Susanna Forrest

Richard Nash

Jeannette Vaught

HUMANIMALIA 13.2 (Spring 2023)

Abstract: This roundtable discussion brings together four prominent scholars from equine studies (Susanna Forrest, Richard Nash, Karen Raber, and Jeannette Vaught) to discuss how we have historically shaped the equine body (and mind) when we breed and train horses, and how taking this history into account might allow us to imagine new ways of living with horses. Three core concerns are addressed from multidisciplinary perspectives: How do human representations, desires, and fantasies inform our interactions with horses? How have equine bodies and minds been shaped by us over time? How do the stories we tell ourselves about equine bodies in turn shape how we relate to horses—and how might we do this differently?

Keywords: *equine studies; equine history; ethology in animal studies; horse–human relationships; breed and breeding; training relationships*

Contributors:

KRISTEN GUEST is Professor of English at the University of Northern British Columbia, Canada. Email: kristen.guest@unbc.ca

MONICA MATTFELD is Assistant Professor of English at the University of Northern British Columbia, Canada. Email: monica.mattfeld@unbc.ca

KAREN RABER is Professor of English at the University of Mississippi. Email: kraber@olemiss.edu

SUSANNA FORREST is a freelance writer and researcher living in Lund, Sweden. Email: susanna.forrest@gmail.com

RICHARD NASH is Professor Emeritus of English at Indiana University, Bloomington. Email: nash@indiana.edu

JEANNETTE VAUGHT is a Lecturer in Liberal Studies and Women's, Gender, and Sexuality Studies at California State University, Los Angeles. Email: jvaught@calstatela.edu

This roundtable brings together the substance of two separate discussions about the ways humans have shaped equine bodies, and continue to do so. The first conversation was a public presentation broadcast as part of the Equine History Collective's speaker series and moderated by the guest editors, while the second was a discussion between the moderators and participants that delved deeper into issues raised in the first session. The text presented here brings together parts of both conversations in order to highlight core questions and themes.

Kristen Guest and Monica Mattfeld: The idea for this roundtable was inspired by an experience we had a few years ago when we visited the Arabian pavilion at the International Museum of the Horse. As we walked through the exhibits, we had an interesting conversation about whether the Arabian horse that we know now was a product of human fantasy or not. Looking at photographs of Arabian horses from turn-of-the-century Syria, most did not look anything like a modern show Arabian with the dished face and high-set tail now associated with the breed. Where we did see these types of horses, though, were in the Romantic paintings that formed part of the exhibit. We wondered, then, if similar things happen when we imagine a wild horse or a racehorse? Are human representations, desires, and fantasies informing the ways we shape equine bodies?

Karen Raber: I do think fantasy is where it starts. My poor middle class Jewish parents who only ever wanted me to go to college and be a nice doctor were horrified at the consequences of giving me the *Black Stallion* series when I came very close to becoming a horse trainer instead.

Humans imaginatively create the worlds that we inhabit, and we create those worlds for animals too. And we don't know whether animals create their own versions of those worlds. I would also say, I always find it fascinating that when we do animal studies we always end up having discussions that we haven't yet resolved in human studies. The two are continuous with one another, and we have still never figured out how to resist massive structures like capitalism, and the economic uses of the horse, and the fantasies that

literature and other things bring into play as we imagine ourselves in relation to these systems.

Susanna Forrest: I agree, Karen. There is so much fantasy about wild horses. When I first started thinking about the wild horse fantasy, I intended it to be part of a book on girls and horses, and I was going to examine why girls want to be the ones who tame the wild horse. What I found was that despite this fantasy of having horses that are untouched by human hands, real wild horses are actually manipulated (literally and figuratively) to an extreme degree by humans and that they have distinct cultural and even utilitarian roles.

Currently there is a utilitarian argument for wild horses in which they're positioned as guardians of the landscape and restorers of ecosystems, which is what's happened in Mongolia (along with other grazing and conservation projects in the West). But there's also a whole other symbolic strand, which is the historical moment in which this fantasy about the wild horse emerges in the early nineteenth century—a time when Western society is full of horses that are the opposite of wild. There's always an intertwined relationship between how we perceive wild horses and how we treat domestic horses.

Richard Nash: This takes me far afield, but two things struck me listening to you discuss fantasy and the concept of “wild”. One is a wonderful video that's been circulating on the Internet for a couple of years now about returning wolves to Yellowstone park.¹ The most amazing thing about the video is that it shows what happens to the ecology, the complete ecology, once you introduce wolves back into the picture. It's the notion (which has always struck me as the question with breeding to rewild things) that often there seems to be a presumption (it's good to hear that that's changing) that one can rewild an animal independent of the ecological context in which the animal lives. The big thing we learned when we think ecologically is how who we are, what we are, determines and influences where we are, as well as the other way around. These things are all woven together. And in that sense, and this gets me back to what *Wild*

1 “How Wolves Change Rivers” (2014). <https://youtu.be/yysa5OBhXz-Q>.

Enlightenment was really all about, once you start thinking ecologically the thing that becomes particularly strange to imagine is how we define and create this distinction between wild and domestic, or what it means to be wild. This is clearly what's now being argued about the Przewalski's horse. I've been thinking about that issue for a long time, and the question of the fantasy of the feral that I talked about in *Wild Enlightenment* is the idea that one can get back to that animal creature as vehicle, that one can get back to some imagined idea of what "natural" horses were before they became socialized and domesticated.

The other thing I was thinking about is the connection to what I'm trying to do with this slippery topic of inventing the Thoroughbred in the early modern period. There is a fantasy, and it's encoded in the breed when people talk about foundation stallions, that there is a moment when things begin, and of course there is no moment when things begin. Instead, there's a sort of messy transition out of which things appeared and then institutionalized themselves and, usually as part of that institutionalization, there is a claim about the moment when these horses began. When you go back before that moment, you find this incredibly muddy trafficking of what "Thoroughbreds" were that mucks about for a while and then turns around to announce itself as having been created. I think if you go back far enough, you're going to find a space of confusion, which is where I spend most of my research life.

Jeannette Vaught: One thing to bear in mind is that our fantasies don't only shape bodies but also our relationships with horses. Though we might imagine other ways of living with our equine companions, people are often unwilling to give up the things that they like to do with their horses in order to make changes that would improve their lives because those changes are impractical and not part of accepted ways of doing things—because our fantasies of having successful relationships with horses are shaped by what exists and what we've been told we should do. If we can begin to think more critically about the bargains that we've struck in this arrangement, however, I believe we can reconfigure human and equine relationships in ways

that work towards more meaningful multispecies freedoms—echoing Karen’s point about the linked nature of animal studies and human studies—and more complex and rewarding multispecies relationships. So we’ve got to find ways to nurture new fantasies!

One way to think about how this limited capacity for fantasy shows up is in our current gendered relationships with our horses. One example that’s obsessed me for years is the pharmaceutical regulation of sexualized femininity in mares, using products like Regumate not only to facilitate breeding, but also to curb displays of sexual maturity that people find embarrassing or difficult to manage safely within existing social structures. To some degree, this hormonal shaping of the horse reinforces the view of horse–human relationships as a version of the parent–child relationship, because female equine adulthood is just too much to handle. It conforms, of course, to long-standing restrictive cultural beliefs about women in domesticity, and the hormonal alteration of the bodies of female horses follows the same repeated pattern of enforcing dominant gendered and sexual norms for human and equine behaviour and kinship. It follows old and familiar narrative strategies that have long governed the literary and visual representations of girls, women, and horses as a means of warning us about the dangers of sexual freedom and independence. Pharmacology in this example is simply a new tool to do the old job of constraining feminine sexuality in order to enforce compliance and domestic nonsexual feminine roles as a social norm. It also suggests how, and the extent to which, we’ve surrounded ourselves with de-sexed animal companions since we are really unprepared to relate to those who are not de-sexed. To get anywhere with this, I think, we must recognize and get past the idea that erasing sexuality from human relationships with companion animals—or shunting sexuality off solely to breeding purposes—should be a requirement for human attentions and affections. That’s a whole new fantasy of relating! And that’s no easy task, and it comes with significant hurdles, pitfalls, and ways to fail.

SF: I was just thinking, Jeannette, as you were talking about policing equine sexualities, about a conversation I had with a conservation

manager for a rewilding project who wasn't a traditionally horsey person. They had this hybrid expectation that the horses should be wild but at the same time, extensively managed. Because they didn't want any more foals they had decided to geld the stallion, but they wanted him to continue to behave like a wild stallion, moving the herd enough to graze correctly. So he was vasectomized. And then they also had an additional problem that he was too much like a stallion and got very aggressive with the youngsters when they got to be a certain age. So it was this strange combination of getting these horses because they were ostensibly "wild" and then policing how they behaved. That made me think a bit of your research and the restrictions we put on horses.

JV: Susanna, I was also thinking about connections between our work. What I've written about cloning on the commercial side is also happening on the extinction side — not just for horses, but mammoths and other animals that scientists are trying to bring back from the dead. It makes me think about the kinds of logics that we have to work through in order to make something seem like a good idea, like a possible idea, or like something that we might be able to handle. The results of that are so fascinating to parse in relation to our relationships with horses.

KR: This discussion about fantasy and relationships has a lot to do with ideas of "wild" and "domestic". Indeed, in *The Nature of Horses* Stephen Budiansky asks why we never domesticated the zebra. And it turns out the answer is that many people believe zebras are more hostile and aggressive than other species and so the thinking is that the zebra cannot be collectively domesticated. (Usually the explanation is that they evolved to fight lions, their main predator, so are more violent; but I'm very suspicious of that assertion!) In other words, our assumptions prevent us from trying to domesticate zebras — so we conclude it cannot be done. But my questions have always been: how much is produced by human expectations of those interactions, the human approach to the animal, and the assumptions that govern that relationship? And how much of it is actually intrinsic?

For instance, when thinking about horses, those with a “kind eye” are often thought better, kinder, easier to train. I mean, I don’t know if you can make a biological argument that the size of the eye or the darkness of the eye has anything to do with anything, but it certainly works out in training, like a horse with a “kind” eye just gets treated better. So are you producing this docility because you imagine it is there?

SF: This tension between our ideas about wildness and domesticity is something that also happens with the Takhi. They are treated as wild horses—usually separated out and left to be “wild”, often in quite limited spaces. But there have been successful attempts to tame them. In the management of free roaming horses in general, moreover, there’s been an ongoing clash about which type of horse is best suited to conservation between people who support focusing on native indigenous breeds of horses like the Exmoor, and those who want the designated “primitive horses” like Koniks, which are a kind of reconstructed “fake” Tarpan. I was told that Koniks are actually quite easy to handle—much easier, in fact, than Shetlands.

There’s also a really great study by the anthropologist Natasha Fijn, which points out how the imagined distinction between wild and domestic in Mongolia is really not as straightforward as we’d like to make it out to be.² She notes that many domestic Mongolian horses are kept in a quasi-wild state, in which they graze freely, choose to breed as they like, and often are not used for riding. And then you have some Takhis who have been raised in zoos and are completely managed, so these domestic Mongolian horses actually live in a comparatively “wild” state. Complicating this further, there is a long history in Mongolia of occasionally breeding domestic horses to Takhis. So in Mongolia at least, there is a literal lack of boundaries between wild and domestic horses. But the ideal, or fantasy, of “wild” remains really powerful in Western culture. For instance, in eighteenth- and nineteenth-century travellers’ reports, it’s clear that locals believed feral horses could be tamed, but a truly wild horse would die if you tried to break their spirit.

2 Fijn, “The Domestic and the Wild.”

The question about human fantasies we've been thinking about is central to Lucy Rees's work on equine behaviour.³ She deconstructs a lot of the things we've been talking about — the gendered relationships we project on wild horses and the notions we have of how they interact with us, and what they're trying to say to us. For me, thinking about horses in the light of Rees's work really changed the way I interact with them and how I think about what we can do with them. My own experience of wild horses was that I couldn't get near any of the Takhis in the Mongolian reserve I visited because they remove themselves as quickly as possible if you get anywhere near them. So there's no fantasy relationship in real time!

KG/MM: So to build on these ideas about the role fantasy plays in our understanding of and relationship to horses, how have equine bodies and minds been shaped by us over time? How are human ideas (and fantasies) of breed, purity, and value implicit in this process?

RN: I thought I would talk about two ways of shaping the equine body in Thoroughbreds and why they are historically important as they raise the issue of unanticipated consequences when we try to shape not just individuals but whole breeds. The first is human influence on the muscular-skeletal framework, the outward shape and appearance of the horse. The second is our influence on what we can't see in this skeleton: things like respiratory bleeding. I want to talk a bit about the intersection between the shaping of bodies and the role of veterinary knowledge as it emerges in the eighteenth century and develops into the twenty-first. I begin with Eclipse because he has an iconic and important status in the history of the Thoroughbred. We think of him not necessarily as a foundation stallion, but as a conduit for the influence of the most important of the foundation stallions, the Darley Arabian. He is also the most famous horse of the latter half of the eighteenth century.

One of the things that's interesting about Eclipse is how he stands in some minds as the *first* great racehorse but was also functionally one of the *last* of the old style of heat-racing Thoroughbreds.

3 Rees, *Horses in Company*.

Eclipse is legendary because he was undefeated, but he was racing at a time when Plate racing required horses to win two of three four-mile heats in order to win the plate. By the time you get to the end of the eighteenth century, heat racing (and the type of horse bred for them) was already going out of fashion and being replaced by versions of the stake races that we have today: racing as a single event. What emerges, then, is a different racing practice than Eclipse was training for, developed for, and in fact bred for. And yet, his mythological status remains.

In his time, Eclipse, had come to be seen as the epitome of what a racer should be and would at the time have been considered a large racehorse. However, what “large” was is open for debate: upon exploring Eclipse’s and period horses’ size, I discovered immediately that even though we have his skeleton, and even though it was meticulously measured about a decade ago, the people who measured it never said exactly how many hands tall he was. They measured each individual bone, but they did not specify how tall Eclipse was. As near as I can work out, you get estimates of Eclipse running from just over fifteen hands to just over sixteen hands, which is a significant variation. Today, we’re used to hearing that eighteenth-century horses were smaller than they are now; yet, sixteen hands would still be a good-sized horse today. How much has the shape of the animal really changed in terms of size?

It’s also interesting to think about how we understand Thoroughbreds in terms of their physical structure, while largely ignoring the internal organ structure that is every bit—or perhaps even more—important for racehorses. Eclipse was directly related to a stallion called Flying Childers (Eclipse is the great-grandson of this horse’s full brother), who had a kind of celebrity status in the early eighteenth century that was comparable to the celebrity that Eclipse had later in the century. Both Eclipse and Childers are famous not only for being unbeaten, but also for winning their races by tremendous amounts. Again, you have to remember that at this point in history, races were typically run at or beyond four miles, often in multiple heats, unlike today, when horses run a single, shorter race. These different kinds of

races require different capabilities from horses. With the shorter distance racing we have today, people look for horses who have tactical speed they can turn on whenever it's needed, and who also have a high cruising speed that allows them to go relatively fast at a nonextreme gallop. In heat racing of the eighteenth century, however, that high cruising speed was dominant because it had to be sustained for a much longer distance. What this meant is that if you could run the first two miles faster than your opposition, by the time the real racing started the field were already struggling to keep up. That was how horses like Eclipse and Childers succeeded.

I mentioned that Childers is the brother of Eclipse's great-grandsire, and the reason I did so is that his brother, who was a more important and influential sire, was less well known (and never figured as a subject of portraiture) because he never made it to the races. The reason he never made it to the races was that in training he bled visibly from the nose—a condition now known as epistaxis. We only learned in the 1970s that visible bleeding from the nose is just the smallest tip of the iceberg when it comes to respiratory bleeding that takes place in all racehorses, and indeed likely in all horses that undergo extreme exercise. If you exercise race horses at anything like a high and sustained speed, they're going to have some degree of haemorrhaging in the lungs. With the recognition of epistaxis and EIPH (exercise induced pulmonary haemorrhage), you saw two innovations in racing in America in the 1970s: the introduction of legalized anti-inflammatories and Lasix (furosemide) as a preventive therapeutic. Recently, there has been an attempt to roll back the use of Lasix in response to arguments about the proper role of veterinary care and equine welfare when in racing.

To me, this inheritance of eighteenth-century breeding is related to what you can and can't see when you look at Eclipse's breeding (for a specific type of race) and his skeleton. Today there are two ways to address it: you can use anti-inflammatories as preventive measures to lessen the likelihood of catastrophic breakdown, and you can use Lasix to reduce the chance of fatal bleeds. Those interventions have produced incredibly heated debates revolving around medication. It

seems to me, however, that we should be asking if veterinary intervention itself is harmful and how far it abets our choices in breeding. This question is at the heart of what's been going on over the last fifty years, and underpins further questions — such as how to develop policies that are in the best interest of the horses that you choose to race? On the extreme end of this spectrum is the question of whether we should stop racing horses altogether — a question that has implications for the Thoroughbred in particular, since it is a breed that is almost entirely valued as a racehorse. If you stop racing horses, do you stop breeding Thoroughbreds? What is the value of a Thoroughbred if it can't race?

There are major constraints in such discussion, since the expense of having horses, especially Thoroughbreds, is so immense, and has become so commodified, that it's virtually impossible for anyone to make decisions that are not based on dictates of the marketplace. For instance, if you're going to breed a mare to a stallion, you not only have to think about what the cost of the breeding is going to be, but also about potential value of the resulting foal. Most breeders today must think in terms of how they manage their mares in a competitive commercial marketplace. And what comes through more than anything else in these policy debates is how much the arguments that are fought over with such intensity today simply repeat dogma and doctrine that you can find in the eighteenth century about breeding and managing horses — even as we continue to reproduce genetic issues that go back to the very origins of the breed and that spring from our preoccupation with the look of the horse.

KR: Building on Richard's history of performance and the "look of the horse", I want to push our discussion even further back in time to think about one of the more intriguing descriptions of horses found in early modern literature: the Dauphin's speech from Shakespeare's *Henry V*, which is usually rendered as a kind of mockery of the Dauphin's excessive adoration of his horse in quasi-sexual representation of its beauties. But this is a heteronormative response to the speech, and in perpetuating it we're just reproducing the anxieties and rejection of the characters surrounding him who try and redirect his discussion back

to a more heterosexually appropriate desire for women. What I suggest instead when looking at this through a kind of socio-cultural frame, what we might want to do is think about what is it about horses that encourages this kind of sexualizing response of the animal.

For me, it is all to do with shape. I'm going to read you a few of the quotes that are ubiquitous in early modern treatises and show how important that issue is in the period. In a seventeenth-century work, *An Hipponimie, or the Vineyard of Horsemanship*, Michael Baret talks about the ideal "handsome" horse as one with ribs that "beare out in ro[t]undity like a barrell", and wants it to have a "round Backe", meaning rounded haunches.⁴ Thomas Blundeville prefers the Neapolitan to the Spanish Jennet, because the latter's "buttockes bee somewhat slender". He generally approves animals that are "full of apparaunt muscles or brownes of fleshe" with short backs and "great round buttockes".⁵ And in his advice to horse purchasers Gervase Markham refers again and again to the many swellings that comprise the perfect equine form. So, he says, see that "the Breast [...] be broad, out-swell-ing", and that the animal have "fore-thighs" that are "fleshy" and again "out-swell-ing". Markham then goes on to say, "look upon his Buttocks and see that they be round, plump, full and in an even levell with his body, or if long, that it be well raised behind and spread forth at the setting on of the tail, for these are comely and beautifull."⁶ Similarly, if you look, for example, at Renaissance paintings and sculpture, you find the same kind of dwelling on fleshly curves, the roundness, the "out-swellings", as Markham puts it. Kenneth Clark talks about this feature as the "splendid curves of energy": in these paintings of horses, "the neck and the rump, united by the passive curve of the belly, and capable of infinite variation, from calm to furious strength [...] are without question the most satisfying piece of formal relationship in nature".⁷ Therefore, in the early modern record, and then in the art history critical record, you have a real appreciation for the shape of the animal as it is represented. This appreciation is especially visible

4 Baret, *An Hipponimie*, 1:110; 2:5.

5 Blundeville, *The Fower Chiefst Offices*, 8, 14.

6 Markham, *The Perfect Horseman*, 120, 124.

7 Clark, *Animals and Men*, 36

in the work of Anthony van Dyck's equestrian portraits and Albrecht Dürer's work. Here you get this emphasis on roundness, essential at the time to the representation of the animal's beauty and health.

We could read this focus on the beauty of curvaceous posteriors in a kind of cultural, sociological, even a political sense. You can talk about it in terms of geometry and the order of nature, but I actually want to talk about it instead as something that is inherent in matter and in human responses to matter itself. In neuroscience, there is a study of the way in which curves are something that humans are predisposed neurologically to prefer. Oshin Vartanian, a psychologist, has conducted experiments that show how this preference is not accidental, that it is inherent in the way that human beings respond to the world.⁸ Following this, I suggest that equine curves present the viewer or the writer with a range of affordances, a kind of an affective stimulation, in this case telegraphing potential pleasures of human life and human equine anatomical engagement. It's those curves that make us engage with the horse that also are the practical affordances that allow humans to be part of a horse–human duality. Thus, the fleshly roundness is the fatty and muscular swelling that Baret, Blundeville, and Markham dwell on. The curvaceous horse mirrors and complements a rider's own curving anatomical structures; it invites eyes, hands, and legs to linger, to touch, to assert pressure, or surrender space to another's form. They seduce with their promise of amplified power driving forward through the rider's legs and seat curves—and we might say our primordial visceral sources of relational and erotic gratification.

SF: I think it's interesting how aesthetics and bodily ideals inform the actual breeding of very different kinds of horses. With the Thoroughbred they're working towards something functionally fast and lean, while the Baroque type you are talking about, Karen, is about carrying power, with both types being bred to progress towards some kind of conformation ideal. With the Tarpan and the Takhi, people have also worked towards an ideal, but for them it is an ideal that they can't see. Most people in the West who attempt to breed

8 Vartanian et al., "Impact of Contour on Aesthetic Judgments".

Tarpan or Takhi can't know what they might have looked like in the wild before their extinction there: they're improvising, and much of what they emphasize comes from nineteenth-century theories—of Georges Cuvier and Charles Darwin—and the fossil record of ancient horses. All of these elements together have resulted in an imagined “primitive” aesthetic: dun colouring, leg and dorsal striping, upright mane, and a “cruder” body shape than the refinement domestication would bring.

As a result of this, Western attempts at back-breeding from the nineteenth century onwards have been contradictory and, in many instances, destructive. For example, one of the earliest captures of horses from Mongolia by Western explorers led to the mass killing of the adults in the herd and the fostering out of the foals to domestic mares. When they did manage to get foals back to Europe, they were split up between multiple zoos without any reliable genealogical documentation or standardized method of obtaining the correct “primitive” type. From here, the horses were bred without knowing whether they were already related to each other. Over the decades, as there were ongoing debates about measurements, about proper colours, about skull shape, the number of vertebrae, etc. that were appropriate to the type, there were deliberate attempts to get rid of horses that were deemed to have “domestic” builds. Ultimately, these haphazard and destructive back-breeding attempts produced a very narrow, inbred, genetic bottleneck of horses. By the period after World War Two, only nine captive Takhi actually produced foals, while the Takhi in the wild went extinct.

Thus, despite efforts to preserve a type of Takhi in zoos, the life that they were living and the way that they had been bred physically changed them away from the wild type—there were changes in bone, loss of colouring, reduced fertility, and shortened lifespans. There have now been several decades of efforts to reduce the inbreeding. But it's interesting to think about the effects of breeders' determination to try to produce a distinctly “primitive” type, a purity.

RN: I have been thinking about how much the idea of what a Thoroughbred is, and how the Thoroughbred world functioned, was not standardized until very recently. The idea that you're breeding to perfect a breed (based on how a breed ideally functioned) is something that's very clear by the nineteenth century, even though what it means to perfect a breed is still not clearly stated. Are you breeding for speed? In the twentieth and twenty-first centuries, you get attempts to underwrite breeding ideas with scientific rhetoric in ways that at times seem ridiculous. One can encounter people speaking and writing about a "speed gene" in ways that seriously distort what we know about the process of genetic inheritance. What's the notion of "gene" and what's the notion of "speed" at work in these kinds of formulations?

The further you go back, and I'm going back into the seventeenth century, the more you find people who are breeding the horses that become known as "Thoroughbred", and who are generally claiming that they're looking to breed better horses for a stronger military—which would mean horses who can travel significant distance carrying meaningful weight at relative speed. But as Peter Edwards has asked, very directly and quite rightly, were they really breeding horses for that purpose or were they using that ostensible, public-spirited and military purpose to generate funding for racing?⁹ This is a question speaking directly to the point of separation or combination between recreation and utility (and that's really so much of what in the seventeenth century you're trying to get a handle on). As such, the very articulation of what it is we're working with as an animal, and what the function of that animal should be as a managed resource, is shifting over time and often without the shift itself being acknowledged. Even when you get into what seems to be well-established nineteenth-century breeding, however, you still have the same problem because you have the question of what is a classic distance for a race? What distance are we breeding horses to race for? What age are we trying to race for? What is a "Thoroughbred"? All those things remain fluid and in flux, and the more firmly you grasp them, the more you lose purchase on their interconnections.

9 Peter Edwards, *Horse and Man in Early Modern England*.

KR: Can I follow on that? This is completely not my historical, scholarly self speaking right now. A lot of what's going on in sport horse breeding at the moment involves a lot of unanticipated consequences because the industry is focused on producing stock that no longer has to make the journey to become a dressage horse. Part of what's happening is that people want to purchase young horses who, from the very beginning of their careers, have the arched neck, muscle development, and elevation that allows for the free shoulder. The problem is that in dressage, horses are supposed to be the product of six to ten years of progressive training and some kind of relationship with the rider that produces correct motion as a consequence of that development. But what you see when you look at events where they're selling these horses are two- and three-year-olds who already look mature because people simply want to buy the finished product. That is creating genetic issues with hypermobility, but also a weird disconnect where these incredibly expensive horses are marketed as the ideal to amateur riders who struggle to sit their large gaits. So function kind of gets lost.

I saw something similar in Arabian breeding in the 1980s, when people were breeding the new, exaggerated style of show horse because the market was so hot at the time. Horses that were discarded were actually often incredibly sturdy, useful, and talented animals, while the ones that were being bred for this fantasy version of the physicality of the Arabian were often unrideable because their backs were literally not strong enough to hold the rider. I think we get these fixations about what it is we want without recognizing that breeding for fashion can never happen without a tremendous downside.

JV: As Richard suggested when he was discussing breeding in the eighteenth century, it can be hard to project what will or will not be beneficial in the future. So it's never easy to say, "Well, if we make these decisions and act this way, then horses' lives will benefit." I think it's very messy territory. And so by thinking about these ways we define "wild" or "not wild", and what human interventions have always been taking place, perhaps we can leave room to wonder if it is even possible to define "domestic". I think that keeping that slipperiness

in view when we're talking about what we're actually doing with our domesticated horses can help us attend to the complexity of our relationships, and the truths that are inherent in that complexity.

To pick up on the veterinary focus and its relationship to unanticipated consequences that Richard introduced earlier, I'd like to turn to questions not just about *what* we breed, but about *how* we're doing it in many sectors of the horse industry. I'm deeply concerned right now with both the current norms of oestrus regulation and breeding practices that have become almost banal in the age of artificial insemination and related reproductive technologies. These are not easy territories to navigate in terms of ethics and what we should or should not be doing, because solving one problem can very easily aggravate another. But I do think that people should be thinking harder about the sexual choices they're making for their animal companions, and in this case, about horses in particular. To draw an analogy with a different species, and to go on a kind of dog tangent for a moment, we might think about dogs and leash laws.

Leashes are fantastic. They protect dogs and humans from disease and injury. And of course legislating the control of free-roaming dogs often means that the dogs around us are fed and housed and vaccinated. These things are really great. But leashes and the human lifestyles that accompany them have also eliminated dogs' abilities to have their own autonomous social and sexual lives, and to have autonomy over their home geographies. And really, that's no small thing for a dog's mental and physical health. And that's part of what makes the leashed and unleashed dog encounter many of us have experienced so dangerous: because it is often the case that both the dogs and the humans involved lack the cross-species social skills to be together safely. Added to this is the fact that humans are not required to make up for the loss of social training that comes with the leash. You know, you can choose to if you want to, but you're not required to, and that leads to some pretty wild inconsistencies in how people and dogs interact, and some very unhappy and anxious dogs. So it's not a "leashes are bad" or "leashes are good" situation; rather, the leash is a solution to some

really important dangers and the indirect cause of others. But when things go wrong on either side of the equation, it's the dog — not the human — who ends up suffering most significantly.

For me, de-sexing dogs and cats is a similarly complicated area full of great gains and also regrettable losses. But those losses, again, are felt most often on the animal side. And to finally connect that analogy back to what I was talking about earlier in terms of our limited views of our relationships with horses, the unintended consequences of setting up the structures of our relationships are really, equally complex.

SF: To pick up on your question about “domestic”, Jeannette, another extraordinary development in the ongoing debates on “wild”, “domestic”, and “breeding” (in this case back-breeding) has been that with permafrost melting, all of these incredible ancient animals are coming out of the ground in Siberia. One of them was a foal, estimated to be 42,000 years old. He is so complete he still has blood in his veins and urine in his kidneys. There is talk that scientists will try and clone this horse, so we will finally have a true “wild” horse, as it were, but it will come about by the most artificial means imaginable. If this happens, it may alter the understanding we have of these imagined taxonomies of “wild” horses but will certainly also spur debate about authenticity and ethics.

KR: I just had a question and a thought for Richard. Am I right in thinking that Eclipse's heart was unusually large?

RN: When they did the autopsy on him it was found his heart was unusually large, yes.

KR: I think I'm fascinated by this phenomenon, and I actually hadn't thought as much about this as I probably should. But the idea that when we respond in breeding to externalities, we often forget about internal aspects of what it is that we're breeding for, in addition to the intangibles that we can't quite express, like temperament. What's reliable about trying to read temperament? Is that even a scientific concept? What are we talking about when we say something like that? And how much do we know about internal structures?

RN: It's one of the things that has developed in recent years. There has been a significant amount of genetic research done on the transmissibility of the potential for large hearts. It's possible to breed for that trait, but not every large heart is a good thing to have. You can have an enlarged heart, and it's a problem. But that doesn't seem to hinder attempts to re-create Eclipse's anatomical oddity, and it is certainly one thing that was traced through family lineage well before the era of genetics. In the past there was the more anecdotal version of people looking for horses with big hearts, with all of the temperamental and physiological connotations of that phrase.

With your question of temperament, Karen, the same rhetoric is out there about looking for a horse with a good eye. If you talk to someone in sales right now, that's exactly what they'll be looking for: a "good eye". It is assumed, of course, that a "good eye" is not only definable and recognizable when present, but that it is tied to temperament (demonstrating amazing historical longevity for similar body-behaviour connections). This means, for instance, that if a horse shows too much white in his eye his promotional value is going to go down, even though, as far as I can tell, that has nothing to do with temperament. But it's certainly a long-standing mythology.

KG/MM: These are fantastic discussions, and they are taking us into the realm of our third question: How do shape, ideals, and the fictions we tell ourselves about creating equine bodies in turn shape how we relate to horses?

JV: I'd like to build a bit on what Richard is saying about the ways our organization and use of knowledge in the horse industry shapes our relationships to horses. We've been focusing on questions of animal identity within a breeding system so far, but another important aspect of human-horse relations that gets obscured once we're focused on economic issues, is how much human relationships with animals are encoded by a rationalized worldview. This flows from an emphasis on markets and possessions that encourages us to think of ourselves as selves, and relationships as relationships between separate selves, rather than as beings in connection to each other. I think as horse people all of us have this moment where we

feel like we have had the luck to forge a relationship with a horse that seemed to dissolve those boundaries between human self and horse self. This ideal can be a strong motivator for us to come into relationships with horses, but it gets complicated significantly by the kinds of overlays we've been discussing — the individualized, economically-driven markers of "success" that focus on the horse as a commodity. In part, this likely happens because our management practices — be they managerial, veterinary, scientific, or economic — eclipse the things we don't really have language for. In our relationships with horses, however, whether they be personal, physical, or intimate in whatever way, there's this relationality that betrays the logic of rationality.

I recently had a conversation with a non-horsey friend who is an artist, and even as someone who had not experienced human-horse friendship, she could totally be on board with the idea that the relationships we have with horses are not just with their bodies, but rather with their whole beings — and that when this relationship really works, the boundaries between them and us seem to disappear.

But when we zoom out beyond the one-on-one relationship, those boundaries are actually quite saturating. This doesn't just have implications for us, moreover, because the ways a rationalized worldview manifests — in the emphasis on capital, or science, as a naturalized idea of competition between individuals — also shapes horses' bodies and experiences in ways that individualism and agency can't describe. What I worry about are the ways in which individualist and agency-based models of analysis preclude our ability to dismantle the harmful aspects of our relationships with horses by obscuring how our management of horses as a group determines the ways individual horses have to live. Stallions often exist in these terribly isolated conditions by virtue of their sexuality, for example, and mares are subjected to technologies that regulate their hormones both for breeding and for human interactions.

KR: Can I ask a somewhat impertinent question? I have to admit that I'm very suspicious of the search for a relationship that bypasses all of the kinds of constructs and categories that you've talked about,

because there's a big difference between thinking about our relationships with horses and living with them on the ground. I was on a panel talking about horses at a conference a billion years ago, and somebody was discussing how she did not use any training methods whatsoever with her horse. Gala Argent said something like, "that's fine until you go to get it on the trailer to go to the vet, then what do you do?" I agree with Gala, but I also understand the desire to find a different set of terms for a relationship. So I'm just very curious, what are the benefits and the problems associated with the kind of future that you're imagining? I mean, as Susanna has suggested, we've made horses the creatures they are, and there are none of them out there that we didn't make. So in what ways would we then be actually ducking a responsibility by evading all of these kinds of formalized relationships?

JV: That's a really wonderful question, and I completely agree with it. We can't escape these constructions — and just as we're not escaping them by choosing not to ride, it's also not the case that opting out of training is synonymous with building a better relationship with, or life for, one's horse. It's not like we're going to join a band of feral horses and live together in utopian harmony. But maybe if we could be curious about how to negotiate their relationships with us and themselves differently, that could change the terms of the relationship a lot. The possibility that we could stop committing ourselves to being stuck with what's presented to us as "just how it is" might allow for different living arrangements that actually allow horses to be who they are — while, you know, still being able to get on a trailer and be treated by vets and do fun activities together, right? All of which require good communication and collaboration. And a focus on rational agency partially is what leads to the kind of argument that equates equine freedom with no training, right? As opposed to more realistic and relational ways of getting on together that can include loading in the trailer to go to the vet.

I guess the question I'm getting at with this line of inquiry ties back to one we talked about earlier: who in the human–animal partnership pays the highest cost for the decisions that humans make about their

lives, and what would it mean if humans paid a little more of that cost? How can we negotiate the terms a little more fairly — which isn't to say that we're not going to be lopsidedly directing how domestic horses live. We do have to be honest, I think, that it really is not possible for most people and horses to have an equal relationship. But we can think harder about it, and look at different alternatives and relational possibilities.

KR: I think everything you just said is brilliant and absolutely right. The irony is that historically the idea of the rider as a Centaur figure perhaps aspired to destabilize all of those ways of dividing up and knowing the world, but it never actually did it, and in a really disturbing and persistent way it makes you wonder whether that image is actually part of the problem — that the ideal of connection is already about assimilating in some way that we're not recognizing. I often forget that hybrid form is monstrous in a lot of Shakespeare's texts. Perhaps in our desire for connection, we really want to plumb the interiority of other creatures, so what starts as an ideal becomes monstrous. I've often thought that one of the saddest things about our species is that we are so freaking lonely. We need to know, we need to commune with other creatures, and we want so badly to know something about them — something more than surface — and so we look for it, but the only thing we get is the same thing that we get from each other in some ways: we have language, and we have all kinds of other ways of communicating, but they're just not effective at really piercing to the depths, so we just get surface.

To bring us back, though, to Richard's discussion about long-standing mythologies of body-behaviour ideals, one really old idea about connection with animals is, as Richard already pointed out, through the eye — the "window to the soul". In the horse world there's this emphasis on the "soft" eyes of a horse, and maybe it's a projection about the communication we long for — that we want to engage in because we're alone and lonely in the world as human beings and want to relate to other animals. It suggests that we're not very comfortable with our own limits, and that we are reaching constantly for something more because science and rational categories don't satisfy. We struggle with

that, because we know we're supposed to be all those things, and we're supposed to value all those things, but we're looking for what Jeanette pointed out—intimacy of any kind—and there are so many ways of thinking about the intimacy of human–animal relations.

RN: I'm going to pick up on this discussion of eyes, because it triggered a memory. I was at a sale looking at horses; we had a list of half a dozen horses we were going to look at and were waiting for them to come out. There was a lull, and a horse was just standing there, waiting to be presented at the edge of the barn. I had been following my checklist looking at size, looking at shape, watching their walk—but for a moment I made eye contact with this animal about to be led out to be inspected. Suddenly having broken the frame and made eye contact I realize this is Kentucky, and I have this horrific thought that it's like I'm at a slave auction. I think that is exactly what you're talking about around the issue of the eye—that when there's a gaze it changes the dynamic. For me, that was a really, deeply disorienting moment.

JV: I also want to jump in just for a moment and talk about that feeling of the eye and that desire for connection with another being. In my own relationships with horses, I've definitely felt drawn to the idea that we can learn quite a lot from their eyes and from their expressions. As you point out, this fantastical impulse can be romanticized in ways that we need to be critically aware of, and it definitely relates to the ideas that we've been pursuing about aesthetics and shaping the body. I think that what ends in our attempts to shape horses' bodies begins with our fantasies and desires about what our relationships with them should or could be. Really, our fantasies about relationship not only condition the kinds of equine bodies we choose—whether that be focused on kind eyes or other physical qualities—but those bodies then become the basis for humans performing and experiencing those relationships as particular fantasies of horses-relating-to-us. I think it's worth thinking about this notion that horses are not only a repository for human aesthetics, but also for our desires about relations that we have on a more individual human-to-horse level—your Centaur, Karen.

As such, I'd like to address the process part, and the loss of process, and the kind of re-compensation of that process with the breeding, which I think is such a brilliant point that speaks to larger economic and labour shifts. Becoming a dressage rider was historically supposed to be a bit like going to college where you would devote your life to studying it for a long period of time, and you and the horse together would be brought up in a progressive, systematic way either through military training or through a kind of traditional, rigorous and artistic classical training. This was always more ingrained in Europe and has never really been available in the United States in any kind of meaningful way. As a result, as markets have globalized, in this country you have this disconnect between the labour itself of becoming a professional horseperson, the value that labour would have, and the organized way in which that labour would occur; not to mention, you have no real economic space for that labour to occur, and no model on which to pattern a desire to actually participate in such labour. So I think that breeding has kind of taken over that vacuum.

I'd also like to highlight something Richard said that crystallized something for me, which I haven't before been able to put words around: that as a result of what was going on in the eighteenth century we created the conditions for a Thoroughbred horse, and a horse to fit those conditions. Now, hundreds of years later, we no longer have those conditions, but we still have that horse. That old lineage shapes horses in current racing practices even though the context in which such breeding made sense is long gone. So the question is: what do we do now? I think that's such an important and wonderful question, and I'm really, really excited that you posed it within that contextual and historical frame.

For me, it illuminates something I've been thinking about, about questions that the study of bodies and embodiment has posed for me. Taking what I've learned from that work into a more relational territory is where I'd like to go next — not abandoning questions of embodiment so much as asking about the body, the mind, and cognition all together. All of these qualities shape both horses and the grounds for our relationships with them. I'm particularly interested

in asking questions that get at who horses are apart from us. Who would you be, horse, if we weren't managing your sexuality? Who would we be together if we could be our full selves, whatever that means? We can't know the answers to these questions until we change the terms of the relationships we have now.

I know these seem to be perhaps unanswerable questions, but over the past couple of years, research has appeared in scientific fields like ethology and social science that have given some empirical backing to the claim that horses have wonderfully developed cognitive and communicative abilities across species. With such grounded support for exploring the prospect of different ways of thinking about interspecies communication, what might it mean, to follow my current obsession, if taking responsibility for the care and safety of horses were not synonymous with managing or removing their sexuality? What would it mean to set aside the parental metaphor from definitions of responsibility and care for companion species? What would happen if we moved towards a commitment to accept the cyclical bodily-determined fluctuations and feelings, behaviours, and social abilities of nonhumans who share our homes, our time, and our attention?

These are pretty big philosophical and practical questions, and they may be difficult to pursue, especially through empirical research, but I think in the horse world we could start by thinking differently and asking different questions about our treatment of mares' bodies. What if we refused to equate sexual maturity with mandatory managed reproduction on the one hand and chastity on the other in relationships from the factory farm to petkeeping? Would these be steps towards a larger refusal to allow heteropatriarchal, anthropocentric, and capitalist structures to govern the uterus of any of us? Would it allow us to live together as adults? Historical grounding, theoretical context, and scientific research are critically important, but for me it's also not the end of the line. Instead, it's a path for developing theory, practice, and philosophy that aims to improve the present and future relationships between horses and humans.

RN: To add to this philosophical questioning, and take a more economic stance on issues of gender and breeding, I'll say we know there is gender bias in breeding practices past and present. Breeders and consumers focus on stallions today, but historically it's not always been stallion, stallion, stallion all the time. In fact, stallion vs. mare is a debate that is as old as the Thoroughbred — but the most straightforward reason there has always been a greater focus on stallions is pure economics; that is, a mare can produce at most one viable foal a year, and will have to skip years at some point, while the stallion can be bred to multiple mares per year over a comparatively long breeding career. It's also much harder to track important producing mares: with a much smaller sample you usually have to wait three or four generations before you realize how important specific dam lines are. So simply at the level of commercial appeal we focus on stallions, and it's especially become the case since the 1970s. Before Secretariat, stallion books were kept at forty per year, but now horses like Into Mischief and Tapit breed two hundred mares a year. In some cases, shuttle stallions will be breeding a hundred mares in one hemisphere and then going to the other hemisphere and breeding a hundred more. As a result, there's simply an economics of scale which dictates that the stallion draws the investment: if you want to get rich in Thoroughbred racing you want to own a horse who will be syndicated as a stallion because that's where all the money winds up flowing.

By the same token, there are people in the industry who will tell you that it's the mare that matters, and certainly the people that I've worked with at the upper levels place a real emphasis on finding the right mare first. They argue that once you find the right mare then you can find the right stallion to get the cross you want. Most serious breeding programmes now have one eye on the commercial market all the time with both parents, and that restricts choices a lot — because even if you think that crossing a particular stallion with a particular mare would make the ideal Thoroughbred for all time, you still wouldn't breed those horses if there was no commercial market for offspring of either parent. In the end, the main goal of most breeders is to sell the foal and have some back-end value.

SF: For me, there's so much room for the history of science to offer insight into the ethology of horses, and particularly in the way we talk about wild horses. In early travellers' reports from the West about the Takhi, they appeal to orientalist ideas about stallions and their harems. The discourse is highly gendered and assumes a very patriarchal and hierarchical system, with an emphasis on colts being thrown out of the band by the stallion. This changes a bit in the 1970s with a new focus on the lead mare's importance in the herd. It's a way of thinking that corresponds with the emergence of second wave feminism, and it suggests how much ideology determines how we see the natural world. Using ethology to think about wild horse relationships allows us to imagine that perhaps horses don't have hierarchies at all (as we understand them in human terms), that maybe they're more like anarchists who band together, and whose actions are determined by whoever is hungry, or whoever notices a threat first. Distancing ourselves from human assumptions in effect allows us to see them differently: as a fluid group, in which mares and colts may decide to leave or drift away rather than being driven away.

KR: I think lurking in a lot of the discussion about animals and about training relationships is a concept of freedom, and the belief that there would be a different set of behaviours without the kinds of constructions that humans force horses into. And, as Susanna's work makes clear, the boundaries are very hazy and very ancient. We don't know what we don't know about what a horse is outside our historical relationship to the species. It is also difficult to calculate the costs of a human–horse relationship, because there is a huge cost to living feral. As Nigel Rothfels points out, there's no way we can know that animals in zoos or barns or houses aren't perfectly happy with the arrangement.¹⁰

KG/MM: Is there anything anyone would like to add?

KR: Can I end by saying that one of the consequences of these conversations is that I have concluded that people are weird? People are just weird.

¹⁰ Rothfels, "Zoos, the Academy, and Captivity", 484.

Works Cited

- Baret, Michael. *An Hipponimie, or the Vineyard of Horsemanship*. London, 1618. EEBO-TCP. <http://name.umdl.umich.edu/A04062.0001.001>.
- Blundeville, Thomas. *The Fower Chiefyest Offices Belongyng to Horsemanshippe*. London, 1566. EEBO-TCP. <http://name.umdl.umich.edu/A16229.0001.001>.
- Budiansky, Stephen. *The Nature of Horses: Exploring Equine Evolution, Intelligence, and Behavior*. New York: The Free Press, 1997.
- Clark, Kenneth. *Animals and Men: Their Relationship as Reflected in Western Art from Prehistory to the Present Day*. New York: William Morrow, 1977.
- Edwards, Peter. *Horse and Man in Early Modern England*. London: Hambledon Continuum, 2007.
- Fijn, Natasha. "The Domestic and the Wild in the Mongolian Horse and the Takhi." In *Taxonomic Tapestries: The Threads of Evolutionary, Behavioural and Conservation Research*, edited by Alison M. Behie and Marc F. Oxenham, 279–98. Canberra: ANU Press, 2015.
- Markham, Gervase. *The Perfect Horseman, or, The Experienced Secrets of Mr. Markham's Fifty Years Practice*. London, 1656. EEBO-TCP. <http://name.umdl.umich.edu/A51971.0001.001>.
- Nash, Richard. *Wild Enlightenment: The Borders of Human Identity in the Eighteenth Century*. Charlottesville: University of Virginia Press, 2003.
- Rees, Lucy. *Horses in Company*. Ramsbury: JA Allen, 2017.
- Rothfels, Nigel. "Zoos, the Academy, and Captivity", *PMLA* 124, no. 2 (March 2009): 480–86. <https://doi.org/10.1632/pmla.2009.124.2.480>.
- Sustainable Human, "How Wolves Change Rivers," narrated by George Mobiot. YouTube video, 13 February 2014. <https://youtu.be/yysa5OBhXz-Q>.
- Vartanian, Oshin, Gorka Navarrete, Anjan Chatterjee, et al. "Impact of Contour on Aesthetic Judgments and Approach-Avoidance Decisions in Architecture." *PNAS* 110, Suppl. 2 (10 June 2013): 10446–53. <https://doi.org/10.1073/pnas.1301227110>.