
The Point of Perfection

Cattle Portraiture, Bloodlines, and the Meaning of Breeding, 1760–1860

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To modern eyes at least, Grace the cow's two portraits (see Figures 1 and 2) are not flattering. She looks bulky, rectangular, a little comical. At first and even second glance, the portraits look like all the other printed portraits of cattle and pigs that crowded American agricultural print in the first half of the nineteenth century. A moment's reflection, however, makes all such portraits seem somewhat strange. First, though seemingly identical, they are in fact "portraits," depicting named individual animals, whose lives are often described in detail in the caption. They have the idealized form of advertisements, but often, as in Grace's case, the body depicted is not for sale; as the caption reveals, Grace had been killed and eaten in 1851, well before her likenesses appeared in print. Finally, at a time when images were expensive, there are so *many* of them, hundreds upon hundreds in lithograph and woodcut, on broadsides, catalogues, agricultural journals, and manuals in increasing numbers from the 1830s onward.

Clearly, to the growing community of breeders, portraits of domestic

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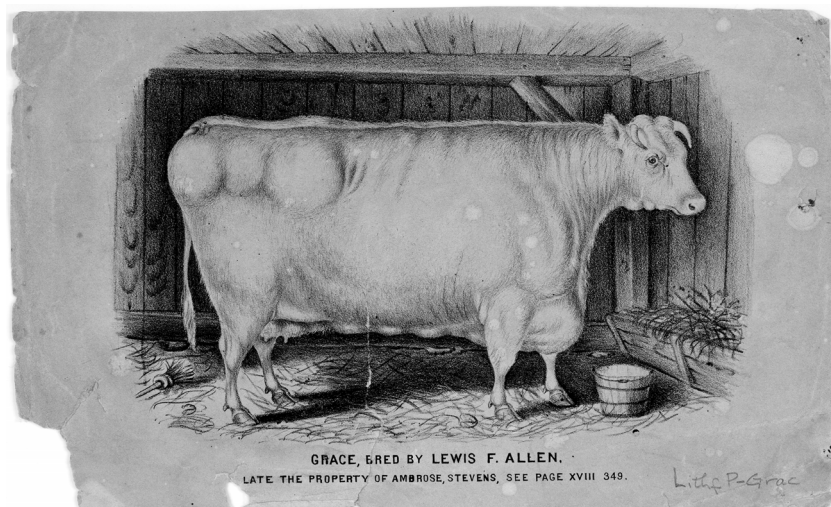


Figure 1: Lithograph of “Grace,” painted by J. R. Page before Grace’s slaughter in 1851. This copy was inserted into Lewis Falley Allen, *American Herd Book*, vol. 4 (Buffalo, NY, 1859), facing p. 249. Courtesy of American Antiquarian Society.

animals were powerful objects. Two years after Grace’s death, when the Patent Office mildly suggested publishing a set of “exact portraits representative of each breed,” which might “be of great advantage and utility in establishing a standard taste in the minds of our planters and farmers,” they were drowned in a flood of enthusiastic, self-promotional, or vituperative letters. Writing in favor of the plan, the agricultural journal editor and soon-to-be Governor of Iowa James W. Grimes prophesied that it would “in very few years double the wealth of the nation.” By contrast, in a much-reprinted editorial, the *Boston Cultivator* suggested that the scheme was dangerous. Poorly drawn, it warned, “[the images] would be worse than nothing, as [they] would mislead, instead of directing the public.” Grace’s breeder, Lewis F. Allen, concurred, since, he declared, “There is not artist in [America] who can paint a correct portrait of an animal.” For breeders, representation was supposed to be productive as well as promotional—images of animals were intended and expected to

Roger Turner, Christine Pawley, the members of the Dickinson History Department, and two anonymous reviewers for their valuable comments.

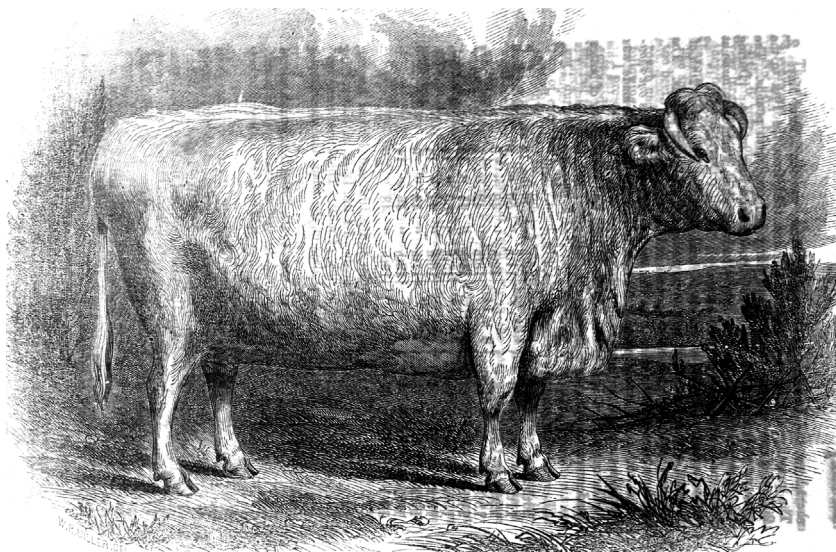


Figure 2: Print of “Grace,” Del. W. P. Miller, Richardson S.C. NY, “SHORT HORN COW, GRACE, winner of the 1st prize as the best Fat Cow, at the Show of the New-York State Agricultural Society, at Albany, 1850; property of A. S. Stevens and J. M. Sherwood, She was killed in New-York in March 1851. Live weight, 1,745 pounds; quarters, 1,210 pounds, tallow, 153 pounds, hide, 101 pounds: total dead weight, 1,464 pounds.” *Transactions of the New York State Agricultural Society*, vol. 10 (Albany, NY, 1851), 37. Author’s Collection.

change real animal bodies, training their audience in the taste necessary for the art of selection, which was also the art of purchase.¹

1. This publication had nothing to do with patents. From 1839 until the establishment of the Department of Agriculture in 1862 the Patent Office became increasingly responsible for the agricultural improvement activities of the federal government, running a popular seed distribution system and, from 1849, publishing an annual collection of articles on agricultural topics that was the most widely distributed federal publication. Oz Frankel, *States of Inquiry: Social Investigations and Print Culture in Nineteenth-Century America* (Baltimore, 2006), 83–84; Charles Mason, Commissioner of Patents, *Circular, July 9th, 1853* (Washington, DC, 1853); James W. Grimes to Charles Mason, July 20, 1853, Patent Office Volumes, 3: 875–78, Records of the Office of Secretary of Agriculture, RG 16 National Archives, College Park, MD (hereafter cited as Patent Office Correspondence); “Portraits of Animals,” *Valley Farmer* 5 (Sept. 1853), 319; Lewis F. Allen to Charles Mason, July 16, 1853, 3: 889–92, Patent Office Correspondence.

To skilled eyes, animal portraits were repositories of a code that we are no longer trained to perceive. Focusing on cattle, the centerpieces of agricultural improvement, this article explores the kinds of knowledge about animal bodies that breeders included and communicated through portraits like Grace's, and explains how that knowledge was to change the bodies themselves. During the late eighteenth and early nineteenth centuries, it will show, the genre of animal portraiture became a crucial part of a new way of thinking about and manipulating animals, the creation of "improved breeds." In doing so the article will link the histories of science, the body, and early American capitalism.

Despite the ubiquity of domesticated animals we know comparatively little about the forms of expert knowledge that surrounded them. Originally stimulated by the explication of Darwinian biology, a legion of monographs has examined the history of "natural history." In tracing the development of systems of classification, mapping the exchange of specimens, and following the expansion of natural history through museums, zoos, images, and the popular press, it has moved beyond its roots, giving us a rich and broad picture of participation in natural science. However, in focusing on those animal kinds found in the wild rather than those animal kinds created within single human lifespans, this body of scholarship has perhaps skewed our impression of the ways that bodies as a whole were understood during the antebellum period.²

Looking at breeders and domesticated animal bodies reveals another world of expertise, as broadly distributed and as influential as that of natural history, a world in which bodies were clearly plastic and visibly manipulated. As we continue to explore the rise of new ideas of bodily

2. Excellent recent studies of American natural history include Andrew Lewis, *A Democracy of Facts: Natural History in the Early Republic* (Philadelphia, 2011); D. Graham Burnett, *Trying Leviathan: The Nineteenth-Century New York Court Case that Put the Whale on Trial and Challenged the Order of Nature* (Princeton, NJ, 2007); Robert E. Kohler, *All Creatures: Naturalists, Collectors, and Biodiversity, 1850–1950* (Princeton, NJ, 2006). These build on a foundational literature including Elizabeth Keeney, *The Botanizers: Amateur Scientists, in Nineteenth-Century America* (Chapel Hill, NC, 1992); Sally Gregory Kohlstedt, "Curiosities and Cabinets: Natural History Museums and Education on the Antebellum Campus," *Isis* 79, no. 3 (1988), 405–26. For an entrée into the history of natural history, see J. A. Secord, E. C. Spary, and N. Jardine, *Cultures of Natural History* (Cambridge, UK, 1996).

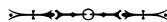
change and development and new concepts of race and gender in the 1830s and 1840s, we should also pay attention to this parallel set of bodies, more visible and more easily and publicly manipulated than human bodies. While a full examination of the extent of the links between human and animal bodily knowledge is too large a subject for the scope of this paper, the reader will see echoes of familiar debates from the histories of race and gender.³

In turning our attention toward domesticated bodies, we can also start to see new intersections between the history of bodies and the history of capitalism. Some of these are material: The practices of the breeders described here literally produced the ancestors of the animals on which the industrial food system now rests. However, these practices can also show us some unexpected dynamics. Working from our knowledge of modern “factory farms,” we expect to see commercial agriculture incorporate animals into the market by rendering them as commodities: nameless, productive, exchangeable units. Recent scholarship on the commodification of animal bodies has explored the ways in which animal bodies were made machinelike. Historians have shown, for example, how horses and mules were literally incorporated into early factory machines on treadmills and windlasses, and how pigs and then cattle were cut into standard segments on a “disassembly line.” Attention to these developments, however, may have obscured parallel forms of commercially driven change that do not resemble factory production. Improved cattle breeders struggled, not to eliminate the individual identities of their animals, but to establish them—assigning names and memorializing physical appearance in portraits. Rather than rendering them anonymous units, they sought to fix them publicly into far-flung families. Exploring such developments reminds us to look for other forms of capitalism particular to the production of living bodies.⁴

3. Historians of science who have devoted attention to breeders include Harriet Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA, 1987); James A. Secord, “Darwin and the Breeders: A Social History,” in *The Darwinian Heritage*, ed. David Kohn (Princeton, NJ, 1985), 519–42.

4. Of course, natural history was implicated in the expansion of markets; a growing body of scholarship shows how the inventory of animals and plants in recently acquired territories was central both to imperial projects and to attempts to render new species as commodities. See, for example, Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Cambridge,

Though it will end in the United States, this story is fundamentally a trans-Atlantic one. As a growing body of scholarship has shown, the breeding practices that would eventually reshape domesticated animals around the globe emerged in Great Britain during the mid-eighteenth century, and were given particular shape by the lucrative trade with American breeders. The article therefore starts in Britain, tracking the major shifts in bodily taste, theories of bodily change, and practices of record-keeping that would create Grace's forebears and give her portrait meaning. The article then follows animals, portraits, and ideas from Britain to North America, showing how American breeders committed themselves to British animals and British theories of heritability and taste. It then turns to portraits themselves, exploring the forms of skilled sight that improved breeding required. Finally, it argues that the seeming uniformity of portraits is illusory; that behind them lay not only varying standards and competing forms of taste but also radically different concepts of the nature of perfection, and of human and divine capacity to shape bodies over time.⁵



MA, 2004). For examples of the industrialized animal genre from the “Envirotech” genre, see Barbara Orland, “Turbo-Cows: Producing a Competitive Animal in the Nineteenth and Early Twentieth Centuries,” in *Industrializing Organisms: Introducing Evolutionary History*, ed. Susan Schrepfer and Philip Scranton (New York, 2004), 167–90; Ann Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge, MA, 2008); Roger Horowitz, *Putting Meat on the American Table: Taste, Technology, Transformation* (Baltimore, 2006), 38, 51; William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York, 1991). More attention to animal celebrity has been paid in the literature on race-horses. See most recently Paul E. Johnson, “Northern Horse: American Eclipse as a Representative New Yorker,” *Journal of the Early Republic* 33 (Winter 2013), 701–26.

5. For the rise of pedigree-based breeding, see Margaret Derry, *Bred for Perfection: Shorthorn Cattle, Collies, and Arabian Horses* (Baltimore, 2003); Nicholas Russell, *Like Engend'ring Like: Heredity and Animal Breeding in Early Modern England* (Cambridge, UK, 2007); Harriet Ritvo, “Possessing Mother Nature: Genetic Capital in Eighteenth-Century Britain,” in *Noble Cows and Hybrid Zebras: Essays on Animals and History* (Charlottesville, VA, 2010), 157–74; Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA, 1987); Daniel Kevles, “New Blood, New Fruits: Protections for Breeders

“Improved cattle” like Grace were products of an enormous conceptual and practical shift in breeding. Their breed names—English place names like “Hereford,” “Durham,” and “Devon”—hearkened back to the setting and first stage of that shift: Great Britain in the eighteenth century. Just as eighteenth-century racial theorists saw differences in human color and shape as emerging from different climates, breeders in first half of the century saw cattle kinds as having emerged from particular qualities of place. As late as the 1760s, the *Complete Grazier*, a much-reprinted manual, reported for example, “[cattle] bred in Lincolnshire are, for the most part, pyed [sic], very tall and large, and most fit for labour,” explaining these qualities by claiming: “In . . . counties where the cattle are fed in marshes, we find them grow to a very large size.”⁶

To reshape the bodies of their cattle, adherents to “high farming” altered their places: sowing their fields with new roots, grasses, and fertility-restoring legumes; building stalls to restrict movement; and inventing choppers to masticate tough roots. Even as bodies seemed to give way to human environmental manipulation, however, an alternative explanation for bodily change was coalescing.⁷

When they told the history of this change, both British and American Durham breeders looked back to three ancestral figures: Robert Bakewell and the Colling brothers, Robert and Charles. Bakewell, a sheep and cattle breeder active from the 1740s to the 1790s, was the first and most famous of these. Though recent scholarship has placed him in a broad community of practice, breeders’ stories about Bakewell, ritually repeated at the beginning of breeding books of the nineteenth century, ensured his place in the pantheon of the “Agricultural Revolution,” the great shift in agricultural techniques that was a standard element of

and Originators, 1789–1930,” in *Making and Unmaking Intellectual Property*, ed. Mario Biagioli et al. (Chicago, 2011), 253–68.

6. Edward Whitaker, *The Complete Grazier* (London, 1767), 11. For a reexamination of the connection between “race” and “place,” see Bruce Dain, *A Hideous Monster of the Mind: American Race Theory in the Early Republic* (Cambridge, MA, 2002), 6–30; for seventeenth-century roots of these theories, see Joyce E. Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo American Frontier* (Cambridge, MA, 2001), 117–41.

7. The classic examination of this fodder-crop based agricultural revolution is J. D. Chambers and G. E. Mingay, *The Agricultural Revolution, 1750–1880* (London, 1966), 54.

British children's history books into the twentieth century. His legend would also become an important part of the rhetoric of American breeders hoping to import new bodily ideas to the United States.⁸

In forging this story, breeders credited Bakewell with at least two major innovations. The first was a revolution in bodily taste. Where his predecessors had admired heavy-boned frames that could support a great mass of meat, Bakewell prided himself on lighter, compact skeletons, shaped like "an hogshead," and short-legged "upon the plain principle," the agricultural journalist Arthur Young wrote, "that the value lies in the barrel, not in the legs." While he may not have invented it, Bakewell promoted this form of taste using strategies that would become standard features of both British and American breeder culture; he held shows at which animal bodies were admired and purchased, and he commissioned and circulated oil paintings.⁹

Second, Bakewell marketed the product of his taste, by selling, not animals themselves, but what Harriet Ritvo has called an "animal template." Like many breeders, Bakewell rented out rams and bulls for a season or a single sexual encounter. However, his prices were astronomical; seasonal bull rental cost half the value of a living animal. He justified this by making unusual claims about the nature of cattle reproduction. "All [Bakewell's cattle] are as fat as bears," Young noted; "a circumstance which he insists is owing to the excellence of the breed. His land is no better than his neighbours'." Here, Bakewell was making a promise that his animals could be reproduced regardless of place. His success rested on his ability to make the effects of descent seem durable enough to be saleable.¹⁰

8. The classic expression of the Bakewell Myth is Baron Rowland Edmund Prothero Erle, *English Farming, Past and Present* (London, 1912), 176–89; see also Chambers and Mingay, *The Agricultural Revolution*, 66–69. For a summary of recent challenges to Bakewell's legend, see Ritvo, "Possessing Mother Nature," 157–76. For the broader culture of breeders, see Nicholas Russell, *Like Engendering Like*.

9. More unusually, Bakewell also maintained a small museum at his family home, where particularly fine joints of his more famous animals were preserved in pickle or as plaster casts. Arthur Young, *The Farmer's Tour through the East of England*, vol. 1 (London, 1771), 112.

10. John R. Walton "Pedigree and Productivity in the British and North American Cattle Kingdoms before 1930," *Journal of Historical Geography* 25 (Oct.

It may be difficult for modern readers to see this as novel. The idea of stable physical properties inherited through “blood” persists in the vernacular language of heredity, only sometimes supplanted by the more modern “DNA.” Even deeper lies “inheritance” itself, so seemingly self-evident from the resemblance of children to their parents. However, as Staffan Müller-Wille and Hans Jörg Rheinberger have shown, the very term “inheritance” contains a theoretical model, implying an unbroken line of traits that have been passed down like gifts from generation to generation. This model, they argue, originally referred not to bodily resemblances but to property inheritance. The related language of “blood” referred not to likeness but to the kind of kinship that granted rights to goods.¹¹

Instead of thinking of likeness as an heirloom passed down over generations, earlier breeders had imagined it as emerging from repeated moments of generation; likeness might be produced during copulation or pregnancy by any number of factors, from similarity of environment, to the level of desire felt by both parents, to the mother’s imagination of the father’s features. This expectation of instability would have been borne out by variability between parents and offspring. In the early eighteenth century, a black cow might well produce both a red and a white calf, just as cats (whose sexual life is hard to control) still produce kittens of many colors in the same litter. Under this set of theories, even the most magnificent bull’s services would be of limited value.¹²

Cattle breeders like Bakewell borrowed the language of blood, a development from the fashionable circles of racing. During the seventeenth

1999), 441–62; Young, *The Farmer’s Tour through the East of England*, 1: 1771, 114; Ritvo, “Possessing Mother Nature,” 162–65.

11. For vernacular meanings of DNA, see M. Susan Lindee and Dorothy Nelkin, *The DNA Mystique: The Gene as Cultural Icon* (Ann Arbor, MI, 2004); Barbara Duden and Silja Samerski, “‘Pop-Genes’: The Symbolic Effects of the Release of ‘Genes’ into Ordinary Speech,” in *Women in Biotechnology: Creating Interfaces* (Dordrecht, Netherlands, 2008), 161–70; Staffan Müller-Wille and Hans-Jörg Rheinberger, “Heredity—The Formation of an Epistemic Space,” in *Heredity Produced: At the Crossroads of Biology, Politics, and Culture, 1500–1870* (Cambridge, MA, 2007).

12. For British theories of reproduction, see Roy Porter, *The Facts of Life: The Creation of Sexual Knowledge in Britain, 1650–1950* (New Haven, CT, 1995). See also Jenny Davidson, *Breeding: A Partial History of the Eighteenth Century* (New York, 2009), 23–25.

century, as Nicholas Russell has shown, racehorse breeders had attempted to strengthen their studs by importing Arabian and Turkish stallions, regularly repeating the procedure because they expected “hot blood” to decline in the English damp over time. Adopting the language of inheritance and blood that increasingly preoccupied their aristocratic clients, a small group of breeders attempted to sidestep this expensive trade. They did so by recording greater and greater proportions of Arabian parentage (referred to as “blood”). By 1750 a new creature, the “Thoroughbred,” marketed as fully Arabian, dominated the racing circuit. Parentage had trumped place.¹³

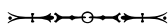
Bakewell adopted racehorse breeders’ techniques and rhetoric. However, where thoroughbred racehorses aimed to re-create an old form in a new place, Bakewell’s methods transformed animals to match a new standard, becoming, not “thoroughbreds” but “improved breeds.” Smaller than their ancestors, his “improved Leicester Longhorns” bore horns that curved down rather than out to keep them from stabbing each other in enclosed quarters; a sprinkling of white on their back differentiated them from other breeds. Also unlike their ancestors they were comparatively uniform—strict selection processes meant that offspring resembled their parents more nearly. This shift changed what it meant to be a breeder. In 1767, the *Complete Grazier* had devoted two scant pages to the selection of stock, summing up briskly: “the cow should be chosen of the same country as the bull, and as near as you can of the same colour.” Constructing new bodies from existing generations, breeders working in the later part of the century would write pages of bodily description, creating images out of words to help breeders perceive desirable sires and dams.¹⁴

Dispersed after his death, Bakewell’s Improved Longhorns declined. The strategies attributed to him did not. Improved Longhorns were imitated by Improved Herefords, Improved Devons, and by Grace’s breed,

13. Russell, *Like Engendr’ing Like*, 61–63; for the earlier expansion of human pedigrees in Britain see François Weil, *Family Trees: A History of Genealogy in America* (Cambridge, MA, 2013), 12–13. As Chaplin has shown, a similar complex of ideas about heat and place was crucial to English settlers justifying the exploitation of “hotter” Africans, and explaining the rapid decline of “cooler” Indians; Chaplin, *Subject Matter*, 120–22. Russell, *Like Engendr’ing Like*, 61; Chambers and Mingay, *Agricultural Revolution*, 66; Walton, “Pedigree and Productivity,” 444.

14. Whitaker, *Complete Grazier*, 2.

the improved Durham Shorthorn, first bred by the Colling brothers, Robert and Charles, in the 1780s and 1790s. These would be the ancestors of the animals imported by American breeders. However, the Colling brothers, like others in their generation, took the doctrine of blood farther, using “in-and-in breeding.” Breeders chose a relatively small group of animals with desirable qualities, and bred them in crosses that in humans would be called incest—mother/son, father/daughter, full siblings. The Shorthorn cow, Clarissa (whose startling pedigree is represented in Figure 3) was a product of this technique. To Shorthorn breeders, this snarl of relationships represented “deep blood.” Because so many generations of Clarissa’s blood came from the same bull, breeders reasoned, she was very likely to be able to transmit his good qualities. While breeders knew that close crosses risked triggering degeneration, poor lungs, and infertility, they argued that the skillful breeder could balance defects of the parents against each other to create perfected offspring.¹⁵



The Collings operated in a field where cattle exhibitions had become commonplace. Late eighteenth- and early nineteenth-century British cattle breeders were lucky; wars with the French drove up meat prices, and shortages lent a patriotic gloss to any effort at agricultural improvement. Popular songs revived beef’s status as the quintessential British food (“beef and beer give heavier blows/than soup and roasted frogs”) and caricaturists copied and recopied the image of “John Bull.”¹⁶

It is therefore perhaps not surprising that the massive bodies of improved cattle became popular spectacles. In this stimulating atmosphere, shows of cattle and sheep that had begun in the 1760s were the centerpieces of the new agricultural fairs. Celebrity cattle like “the White Heifer that Traveled” and “the Durham Ox” trundled around Britain in carriages specially designed to keep them from fat-wasting exercise. It

15. Walton, “Pedigree and Productivity,” 444; Lewis Falley Allen, *The American Herd Book, Containing Pedigrees of Short Horn Cattle*, vol. 1 (Buffalo, NY, 1846), 51.

16. Lines from David Garrick, written for the Seven Years’ War and popularized again in the Napoleonic Wars; see Simon Bainbridge, *British Poetry and the Revolutionary and Napoleonic Wars: Visions of Conflict* (Oxford, UK, 2003), 13.

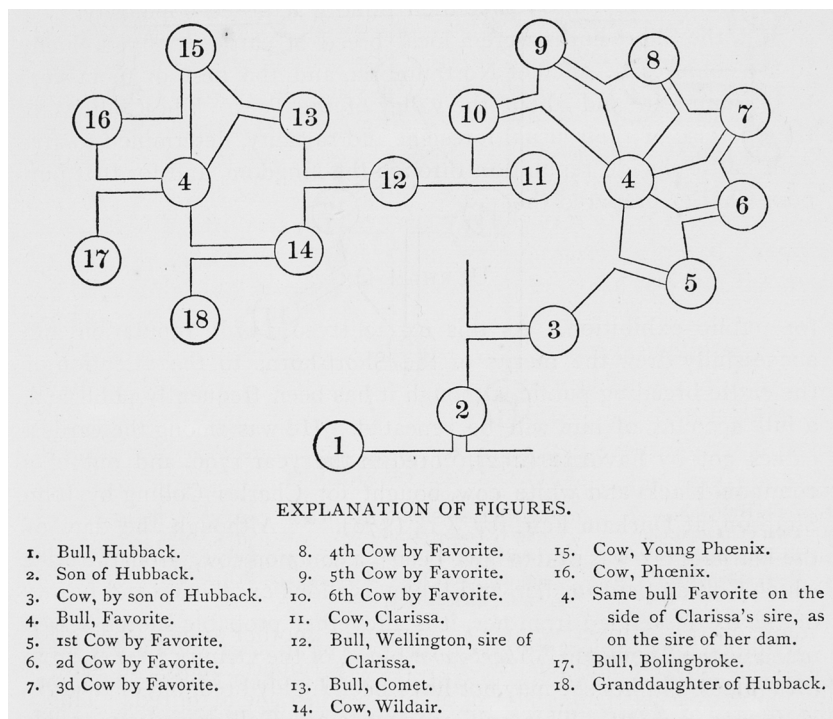


Figure 3: Diagram of the pedigree of the Collings' Short-Horn Cow, Clarissa (1814–ca. 1819). Clarissa is represented by the “11” and her ancestors on both sides by all the other numbers. The spiral on the right centers on the number “4” representing the bull “Favourite”—who was Clarissa’s sire, but also her grandsire, her great-grandsire, and so on back many generations. Since Favourite is also prominent on the left side, it is clear that he is almost her only male ancestor. Constructed from the *Herd Book* in 1846 by Lewis Falley Allen. This image reproduced from Lewis Falley Allen. Courtesy of American Antiquarian Society

was in this period that the genres of display that would eventually publicize Grace’s body were developed.¹⁷

As venues for the display of living cattle proliferated, the population of their painted and printed images grew even more quickly. In the 1780s, encouraged by the success of racehorse painting, a new genre emerged:

17. Lewis Falley Allen, *American Cattle: Their History, Breeding, and Management* (New York, 1868), 144.

the cattle portrait. In previous styles, cattle had appeared as accessories to a landscape; here they were a main attraction. While a few cattle portraits showed a human breeder or feeder and some had a small chicken by way of foil, the majority showed only a vast body, looming up against a low horizon in a careful staging of immensity.¹⁸

Unlike natural history images, which blended features from multiple individuals, straining for an ideal type of the species, cattle images *were* portraits: They claimed to depict specific individuals. Captions named the animals themselves well as the animals' dimensions, and sometimes, as with Grace, descriptions of what they had eaten in their lives, and their weight at slaughter. Animal naming here was not sentiment but business—as pedigrees became more common, links to famous names determined an animal's value more and more precisely. By the 1790s, painters made livings as cattle portrait specialists. That decade, the famous engraver Thomas Bewick would recall, a poorly drawn figure published in an agricultural report so "lessen[ed] the character of [a friend's] sheep" that Bewick himself had to be called in to repair the damage.¹⁹

The Colling brothers used this genre to launch the most pictured cattle celebrity of all time, the Durham Ox. Calved in 1796, the Durham Ox rapidly reached an astonishing 3,700 pounds and was sold in 1801 to a showman who exhibited him across Britain. Though killed and eaten in 1807, he lived on in four oil paintings, dozens of prints, and his own Staffordshire plate. Since the Durham Ox was also the grandson of Hubback, the Collings' founding bull, even after death these images continued to advertise his blood to British and American audiences—some of whom possessed his relatives, including Grace.²⁰

Increasingly, Durham portraits were read with another kind of text: Coates's *Herdbook*, which first appeared in 1822 and was regularly

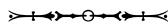
18. For staging, see the main authority on cattle portraiture, Elspeth Moncrieff, Stephen and Iona Joseph, *Farm Animal Portraits* (Woodbridge, UK, 1996). Other valuable exhibition catalogues include Dudley Snelgrove, *British Sporting and Animal Prints, 1658–1874: Sport in Art and Books (The Paul Mellon Collection)* (London, 1981).

19. Thomas Bewick, *A Memoir of Thomas Bewick, Written by Himself* (London, 1887), 182–84.

20. The Durham's Ox story is well known—for a comprehensive account, see Moncrieff et al., *Farm Animal Portraits*, 24–30.

updated after that. Resembling the standard reference work on British membership in the peerage, *Burke's Peerage*, which appeared at roughly the same time, Coates's *Herdbook* claimed to make familial relationships traceable by collecting the fragmentary records kept by breeders into one place. As with *Burke's Peerage*, it attempted to act as a gatekeeper for a privileged but anxious group, defining who was and who was not a member of the herd, excluding bloodlines it deemed insufficiently well developed. As breeders increasingly bestowed names like "Duchess" and "Princess," herd books and books of peerage both promised to make alliances between titled families a less risky business. In herd books, depth of blood became a known quantity—a commodity that could be sold over a distance.²¹

Coates's work had limited impact on British breeders at first. Many British Durhams were not registered; other breeds had no equivalent form. It was the tenuous trade across the Atlantic that would soon make admittance to herd books an important certification for the improved breeds.²²



Descended from the scrubby indeterminate animals brought by Spanish and British settlers two hundred years before, American "native" cattle could not claim to be any breed at all, by old or new definitions. Where British cattle lived in more and more constrained circumstances in the late eighteenth and early nineteenth centuries, many American cattle still wandered woodlots and forests in semi-feral herds. Without fencing, their feeding, reproduction, and movement were uncontrolled. As British cattle grew into docile "kindly feeders," "native" cattle grew bony, long-horned, and ferocious.²³

21. George Coates, *The General Short-Horned Herd-Book: Containing the Pedigrees of Short-Horned Bulls, Cows, &c.* (Odey, GB, 1822). Coates's *Herdbook* was modeled on the thoroughbred *General Stud Book*, which, starting in 1791, recorded the pedigrees of all thoroughbreds to keep animals of the wrong age from being fraudulently included in race. Nicholas Russell writes, "There was not hint that [James Wetherby] saw the *Stud Book* as any sort of basis for breeding policy." Debrett's *Peerage* appeared first in 1769, before the *Stud-book*. Russell, *Like Engendr'ing Like*, 19.

22. For a description of the trans-Atlantic role of the Herd Book, see Walton, "Pedigree and Productivity," 441–62.

23. For accounts of feral and semi-feral cattle, see Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe* (Cambridge, UK, 2004),

American naturalists of the late eighteenth century found this transformation unsettling, particularly as it seemed to support the Comte de Buffon in the debate about the degenerating properties of the North American climate that sharpened and inflected all late eighteenth-century descriptions of North American nature. Still working within place-based theories of race and breeding, Thomas Jefferson duly spent part of *Notes on the State of Virginia* explaining this apparent degeneration away. It was not the deficiencies of the American climate that had created these unsatisfactory forms, he argued, but the failure of American farmers to control the environment as Europeans did, particularly their habit of raising their animals on “the spontaneous productions of the forest.” Restored to a controlled landscape, he argued, American animals could reach European size and quality in a few generations; as proof, he cited cattle reaching “2500, 2200, and 2100 lbs. net,” and a hog, “not within fifty generations of the European stock,” who weighed “1050 lbs. after the blood, bowels, and hair, have been taken from him.”²⁴

Such debates lent a political edge to American exhibitions of cattle bodies during the 1790s and 1810s. In his attack on polygenist racial theories, Samuel Smith adduced as evidence a fat ox exhibited in “Princeton on the way to Philadelphia,” which had measured eighteen feet from the tip of the tail to the nose and weighed 3,400 pounds. Such examples, Smith argued, proved the flexibility of bodies in changing circumstances, attesting to the possibility of vigor in the American climate.²⁵

In the United States as in Britain, fat cattle shows also merged with the agricultural fairs that proliferated in the late 1810s and again and more lastingly in the 1830s and early 1840s. Stimulated by the trans-Atlantic exchange of print, competition at such fairs took on a nationalist tinge. For example, the *Massachusetts Repository* published a piece whose sole aim was to compare the measurements of those oxen winning prizes at the Brighton Fair with “the Official Account of the Famous England Ox called the Durham Ox,” an animal by then dead for ten

171–95; Virginia DeJohn Anderson, *Creatures of Empire: How Domestic Animals Transformed Early America* (New York, 2006), 120–24.

24. For more on founders’ defenses of the Continent, see Andrew John Lewis, *A Democracy of Facts: Natural History in the Early Republic* (Philadelphia, 2011), 19–20. Thomas Jefferson, *Notes on the State of Virginia* (London, 1787), 90–92.

25. Samuel Stanhope Smith, *An Essay on the Causes of the Variety of Complexion and Figure in the Human Species* (Philadelphia, 1810), 138.

years. Here too the symbolic association of beef with British political strength made the size of American cattle a potent subject for national pride. In 1820, at a parade of American cattle consisting of forty-four carcass-laden carts spangled with patriotic sentiments, the victuallers of Philadelphia sang a song fantasizing about British acknowledgement of American beef superiority: "John Bull when he sees this fine beef in procession/Will perhaps lay his prejudice all on one side/And exclaim as he views it, and speak with discretion/Old England, these Cattle have humbled your pride."²⁶

Slightly ironically, many of the bodies intended to humble England with their girth were themselves descended from the new English improved breeds—the nineteen fattest, tipping the scales at an average of 1,547 lbs. without their bones and guts, were of the "Gough Breed," outweighing native cattle raised on the same land by almost 400 lbs. Ten of the sheep carcasses that followed them came from animals descended from Bakewell's own.²⁷

Attempting to repeat the storied triumphs of British improvers, American "improving agriculturists" of the early nineteenth century also actively reshaped their environments with exotic clovers, legumes, turnips, and grasses. Improved British cattle and sheep, the showpieces of British improvement, became a part of this movement of organisms. Brought by wealthy "benefactors"—among them Henry Clay and Stephen Van Rensselaer—improved breeds began to reach North America in trickles in the 1790s. These became rushes during the enthusiasm for cattle shows at the end of the 1810s and again in the 1830s and 1840s, sparking the formation of investment companies devoted to the importation of improved cattle. While the largest herds were concentrated in New York, Kentucky, Ohio, and Massachusetts, according to correspondents to the Patent Office in 1854, improved cattle spread to Maine, Illinois, and even as far west as Oregon.²⁸

26. "Victuallers' Procession," *The American Farmer* 1 (Mar. 17, 1820); "Song, Dedicated to the Victuallers of the City and County of Philadelphia. By, a Citizen-Tune 'American Star'" (Philadelphia, 1820), Library Company of Philadelphia; "Extraordinary Ox," *New England Farmer* 5 (Mar. 30, 1827), 286; Broadside "Great western Ox . . . weighs 3700 pounds! . . ." (East Windsor, CT, 1830?), American Antiquarian Society, Worcester, MA.

27. "Great Cattle Show, and Grand Procession of the Victuallers of Philadelphia," *The American Farmer* 3 (Apr. 27, 1821), 36.

28. "Condensed Correspondence," *Report of the Commissioner of Patents for the Year 1854: Agriculture* (Washington, DC, 1855), 11–20.

By the time of the image dispute at the Patent Office in 1853, there were six hundred owners and a few thousand registered improved Durhams in a nation of more than eighteen million cattle. However, this tiny minority dominated the multiplying venues of cattle display. At the New York State Fair at Albany in 1850, for example, 475 improved cattle from around the state were displayed to tens of thousands of visitors—the qualities of the winners were reported to tens of thousands more through a national network of agricultural journals. By the time her portrait was produced, Grace had been exhibited to perhaps a hundred thousand New Yorkers at successive New York State Fairs in the late 1840s, her quality ratified by three different groups of prize judges.²⁹

Such spectacles of cattle merged with the market; crowds of breeders made fairs excellent sites for selling bloodstock, and prizes helped determine the prices of prizewinners and their relatives. Conducted in much publicized auctions when a breeder liquidated his assets or when a new herd was imported, sales of improved cattle became spectacles in their own right. One commenter remarked that the cattle for sale “turned on to the lawn” in front of John Hare Powel’s mansion in Philadelphia, “seemed conscious of their superiority as they moved about with all the majesty imaginable.” Where the names and blood ties of enslaved people were often obscured in advertisements, agricultural journals and specially printed sale catalogues trumpeted the names and sometimes the parentage of improved cattle for sale, and often reported the prices they had sold for afterward. Readers of the *Spirit of the Times* in 1838 could thus learn that in Ohio, Maj. Chas. Clarkson’s cow “Hyacinth” sold for \$1,000 at the age of 12 when “Rose,” at 6, sold for only \$90, and that the whole herd had sold for \$26,867.50. Particularly famous sale results, like the celebrated sale of Charles Colling’s herd back in England, might be permanently incorporated into the breeding advice literature, testifying to posterity the value of a particular set of potential ancestors and thus a particular set of present animals. Like reports of slave auctions, cattle auction reports also served as a tool for speculators in a volatile economy. Writing between the Panics of 1837 and 1839, the author of

29. Of these, ten million were not listed as either “milch” or “working” cattle in the census. Joseph C. G. Kennedy, *Agriculture of the United States in 1860; Compiled from the Original Returns of the Eighth Census Under the Direction of the Secretary of the Interior* (Washington, DC, 1861), cxv; Allen, *American Herd Book*, 1: Front matter; “The New York State Fair at Albany,” *New England Farmer* 2 (Oct. 12, 1850), 332; Allen, *American Herd Book* (Buffalo, NY, 1859), 4: xix.

the *Spirit of the Times* article assured his readers that “a number of the animals have since been re-sold at a handsome advance of prices.”³⁰

Improved cattle auctions bore little resemblance to the much larger market in the nameless cattle driven in enormous numbers to city markets and known simply as “beeves.” In 1848, one newly opened cattle market in New York sold more than 1,200 cattle weekly, funneling droves of live animals that had had been walked up from as far away as Kentucky, Ohio, Illinois, and Western New York to butchers in New York and nearby towns. In such markets, experienced cattle buyers, mostly butchers, were interested most of all in weight calculations. Inspecting hundreds of living animals, butchers swiftly estimated their “net weight,” that is, their weight when “hung up in the shambles, with . . . head, fore legs, entrails, and suet removed.” To do this they employed a series of commonly accepted calculations for the ratio of “beef” to “refuse”: “the rule is, that one hundred pounds in the gross weight on the hoof will give fifty-five pounds of beef, though the best cattle will of course exceed, while the poorer will fall below this standard.” Where improved cattle auctions created elaborate displays of individuals, more ordinary markets imagined animals as headless “beeves” while they were still alive.³¹

It was largely this city trade, however, that gave the meaty bodies of improved cattle value. As Roger Horowitz has shown, most Americans in this period ate relatively little beef. Even in winter, rural families could rarely manage the eight hundred pounds of fresh beef that might easily come from a single animal, and, unlike ham and bacon, cured and dried beef were considered unpalatable and low, fit for sailors and enslaved people. Beef became a significant part of the American diet only in towns and cities where cattle could be rapidly disassembled and sold to many families. Indeed, urban Americans in the early republic ate astonishing

30. “Great Sale of Durham Cattle Sale of Dr. Hosack’s Stock Sale of Hogs,” *The Genesee Farmer and Gardener’s Journal* 6 (June 4, 1836), 180; “Great Sale of Blooded Stock,” *New Genesee Farmer and Gardeners’ Journal* 3 (Mar. 1842), 41. See for example, W. Youatt, *Cattle: Their Breeds, Management, and Diseases* (Philadelphia, 1836), 231–33; Buckeye, “Great Sale of Durham Cattle,” *Spirit of the Times* 8 (July 7, 1838), 165.

31. “The Cattle Trade of New York,” *The Plough, the Loom, and the Anvil* 1 (1848), 38. For more on the differing dynamics of beef and pork markets, see Cronon, *Nature’s Metropolis*, 225–42.

amounts of beef. Gergely Baics shows that as early as the late 1810s, New Yorkers ate, on average, 85.9 to 92.1 pounds of beef and 16.9 to 19.6 pounds of veal a year. As cities expanded, beeves and meat-to-bone ratios grew in importance.³²

Beeves and improved cattle were more than symbolically connected. Increasingly, indeed, they were related. While cows like Grace were reserved for birthing improved calves, improved bulls often earned their keep with rental income, producing “grades,” animals with a mixture of “native” and improved blood who were described not by name but by fraction—one advertisement referred to grades “from half to fifteen sixteenths.” In the Patent Office *Report* for 1854, a Maine correspondent reported that “grade” Durhams were common, and the correspondent in Scott County, Iowa, reported that Grade Cattle fetched roughly twice the price of common cattle, whereas in the breeding center of Berkshire County, Massachusetts, according to one report “probably from one-half to three-fourths of the neat cattle of this region” were “more or less tintured with Devon blood.”³³

While importing British animals, American improvers also imported British ideas about the primacy of blood. To be worth money in the United States, improved cattle had to retain their value when far from Durham, Hereford, and Devon. The movement of animal bodies committed all participants to the primacy of inheritance as a determining factor in value. If blood were to be admitted to lose its value when it was moved, the networks on which the business depended would collapse. However, American breeders entering the new market in the 1820s and 1830s were necessarily more dependent on texts and images. Where British cattle enthusiasts had opportunities to see improved cattle bodies in the flesh at agricultural fairs and markets and through private calls to breeders’ homes, richer American breeders pored over letters from correspondents sent to purchase animals. Poorer ones had to content themselves with newspaper accounts of prices at the Smithfield Market in London and descriptions of cattle shows reprinted in the American

32. Horowitz, *Putting Meat on the American Table*, 19–24. Gergely Baics, “Is Access to Food a Public Good? Meat Provisioning in Early New York City, 1790–1820,” *Journal of Urban History* 39 (July 2012), 643–68.

33. H. G. Bowers, “Great Sale of Durham Cattle at Auction,” 64; “Statement of William Bacon,” *Report of the Commissioner of Patents for the Year 1854: Agriculture* (Washington, DC, 1855), 16.

press. When imported animals arrived, shipped in at enormous expense, it was difficult for eager Americans to know whether they represented valuable bloodlines or whether they were part of an ever-elaborating system of agricultural fakes.

Given these conditions, it is not surprising that many American breeders placed more emphasis on public bloodline records than did the British. Only Coates's herd, the author of one *Genesee Farmer* article argued in 1834, could stem the tide of counterfeit animals. Using it, he proclaimed, "Every red beast of the field will not claim descent from the elegant and beautiful 'Devon' . . . every ship's cow with a crumpled horn, will not be palmed off on us for an 'Improved Short Horn.'" As cattle showing grew more and more widespread, pro-herd-book breeder rhetoric found support in the agricultural societies, which increasingly made published pedigrees a requirement in showing animals. As early as 1834, the American Breeder R. Whittaker was able to use bloodlines to determine value. That year he advertised the names of seventeen pregnant cows, and the prices of their as-yet-unborn calves "which varied as much as though the respective merits of their parents had already been identities in their embryo progeny."³⁴

By the mid-1840s Grace's breeder, Lewis Falley Allen, had begun to publish his own *Herd Book*, which would be vigorously promoted by the dense clique of New York State agricultural journals over the next few decades. Allen not only claimed to keep track of the expanding population of American Durham Shorthorns but also to index their connections to well-known British animals. Perhaps unsurprisingly, the same pedigree chart he had used to explain the Collings' technique in the deep-blood breeding of Clarissa also spoke to the value of his own animals. For example, Clarissa's many-times-grandsire Favourite and her sire Comet could also be found in Grace's pedigree, making Grace, like Clarissa, a much younger cousin of the Durham Ox.³⁵

Just as they had been in Britain, in the United States, herd books

34. R. Whittaker, "Improved Shorthorns," *Farmer's Register* 1 (1834), 661.

35. Allen, *American Herd Book*. This series was reprinted in 1856, beginning again with volume 1: Allen, *American Herd Book*, vol. 1 (Buffalo, NY, 1856). In writing the *Herd-Book*, Allen employed his nephew, the then seventeen-year-old Grover Cleveland. "Grover Cleveland," in *Biographical Record and Portrait Album of Tippecanoe County, Indiana* (Chicago, 1888), 117–19.

supported and were supported by an expanding interest in human genealogy. As François Weil has shown, in the 1830s and 1840s genealogical practice spread to a much broader population in New England and the Mid-Atlantic, as evidenced in a slew of printed family genealogies as well as in the founding of the New England Historic Genealogical Society in 1845 and the *New England Historical and Genealogical Register* in 1847. Weil shows that members of many of these groups worked to moderate the aristocratic language of blood by emphasizing maintenance of family ties. However he also notes the emergence of a more patrician strain that appealed explicitly and enthusiastically to genteel and aristocratic models. For example, in 1848 the patrician families of New York made their pedigrees public in the “Genealogical tables” of Jerome Holgate’s *American Genealogy*. *American Genealogy* wrestled with the same set of questions about the production of human “excellence” that gripped breeders, promising to investigate whether “distinction” was “attributable to geographical localities, productions of the soil, intermarriage, educational or political influences.” As Weil shows, similar narratives motivated New England elite genealogical efforts to trace what they called “Puritan Stock.” The language of breeding, race, and kinship thus ran through both sets of records.³⁶

The *Herd Book* also served a broader exclusionary function; the improved Durham Shorthorns in the book were not the only animals that could be called Durhams—by the 1820s, American breeders had been importing British animals for thirty years. In the *Cultivator*, Henry S. Randall attacked these earlier imports: the “Devonshires” or “Pumpkin Rumps” that, “although large and rather showy,” were “certainly the worst breed in the United States”; the “Short Horns . . . popularly known as ‘English Cattle,’ though they sometimes borrow the name of

36. Weil, *Family Trees: A History of Genealogy in America*, 88; Jerome B. Holgate, *American Genealogy, Being a History of Some of the Early Settlers of North America and Their Descendants* (New York, 1851) 66–69, 2, 93. For the adherence of improvers to ideas of British landed legitimacy, see Tamara Plakins Thornton, *Cultivating Gentlemen: The Meaning of Country Life among the Boston Elite, 1785–1860* (New Haven, CT, 1989). For the ambiguous relationship between genteel Americans and their British models, see Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York, 1993), 181–203, 273–82; Elsa Tamarkin, *Anglophilia: Deference, Devotion, and Antebellum America* (Chicago, 2007).

Teeswater or Durham, to suit the purposes of the seller”; and “Animals of various degrees of merit, bearing the name of Durhams, but not of pure blood . . . introduced at various times, on speculation.” Turning to the *Herd Book* allowed breeders of bloodlines reported in Coates to devalue the claims of animals imported during previous stages of improvement, including, among others, animals related to the carcasses in the Victualler’s Procession. The apparent transparency of the *Herd Book* gave Durhams an edge in the American cattle trade; Hereford, Devon, and Alderney breeders struggled to produce similar forms of documentary evidence and to produce narratives to challenge the story of the Collings.³⁷

Without deep-blooded bodies to admire and a standard of taste by which to judge them, however, recorded pedigrees were simply lists of names. As breeders attempted to excite desire commensurate with their animals’ prices, they longed for the kinds of images that were so common in Britain. “Were it not so difficult to procure correct portraits of animals,” Caleb Bement lamented in 1836, “I would forward you some, for your valuable paper, which would give a better idea of the superior form of this beautiful breed of cattle, than a column of written description.” During the 1820s and 1830s, the number of cattle portraits available in the United States expanded dramatically.³⁸

Portraits circulated through many channels. British breeders sent oil paintings to clients and correspondents, which were then copied in the agricultural press. The New York breeder Ambrose Stevens, for example, bought an original portrait by Weaver of the “White Heifer that Travelled,” which was reproduced later in the *American Herdbook* as a lithograph. His friend Francis Rotch commissioned sculptures and portraits “painted under my own eyes” of British prize-winning cattle and then allowed American breeders to make copies. Standard British texts, in particular William Youatt’s *On Cattle* (1836), were sold in American editions, and serialized in the American agricultural press. As early as 1827, cattle portraits were common enough that the *North American Review* could write disapprovingly of a promising young painter, “[W]e should be better pleased, individually, if he would turn his attention

37. H. S. Randall, “Essay on Cattle,” *The Cultivator* 7 (Jan. 1840), 28–29.

38. Caleb N. Bement, “Mr. Bement’s Durham Herd,” *The Farmer & Gardener, and Live-Stock Breeder and Manager* 3 (Oct. 11, 1836), 24.

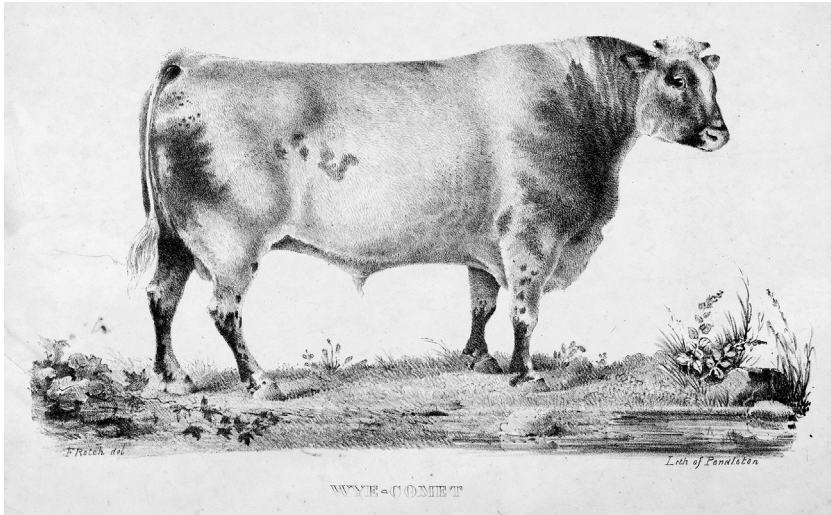


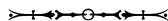
Figure 4: Lithograph of the Bull, “Wye-Comet,” painted by his owner, amateur cattle painter and president of the New York State Agricultural Society Francis Rotch, and probably circulated privately. Courtesy of American Antiquarian Society.

entirely away from fat cattle and blood horses, which are, after all, but vulgar things for painting.”³⁹

During the 1840s, American breeders encouraged cattle painting at home, giving prizes at fairs and in some cases, like that of Francis Rotch, becoming artists themselves (see Figure 4). They also commissioned images—for posters, catalogues, advertisements, and articles in the agricultural journals—making space for a few professional animal painters. In the 1840s, Allen had offered to have images made for breeders willing to be included in his herd book. Assembling later volumes, he could rely on breeders for lithographs and wood engravings that they had developed for puffing their animals in the press. At a time when agricultural journals still boasted of the number of their engravings as a selling point, this availability meant that cattle images crowded journals

39. Allen, *American Herd Book*, 5: xv; Francis Rotch to Charles Mason, July 18, 1853, *Patent Office Correspondence*, 3: 861–63; William W. Clapp, “Review of Catalogue of the First Exhibition of Paintings in the Athenaeum,” *The North American Review* 25 (July 1827), 227–30.

in the 1850s. The sale of bloodlines financed portraits, even as the portraits promoted the bloodlines.⁴⁰



In their portraits, improved cattle look like great big bricks with tiny little legs. This was not an error, but a conscious choice. Diagrams of the Durham Shorthorn published in British and American journals during the 1830s demonstrate that blockiness in cattle bodies, particularly in the popular “fat cattle” category, was both a conventional form and an important virtue. The British breeder James Dickson, whose article accompanied Figure 5, admired “a straight level back from behind the hordes to the top of the tail, full buttocks and a projecting brisket, in short, the rectangular shape.” This was clearly an aesthetic judgment: Dickson himself called such cattle “irresistibly attractive.” Equally clearly however, beauty was useful. “Enthusiastic as this language may be considered,” Dickson wrote, “it is not more so than the beauty of cattle is entitled to . . . symmetry of form generally accompanies mellowness of touch in the skin, and . . . both constitute the true index to a disposition to fatten.”⁴¹

Rectangularity was beautiful, but cattle bodies were more than simple blocks. Breeders looked for perfection according to a system of “points”: significant features, visible to the eye of the skilled cattle judge or breeder, which translated, inexactly, into scores at the cattle show. Elementary texts on breeding often reproduced images of cattle sprinkled with numbers. Each number represented a point, and each point was keyed to a set of rules, differing for different breeds, and for animals at different stages of life.

Though various, points came in two linked categories. First were breed traits indicating purity of blood. By the 1850s, color was the most significant indicator of authenticity; in a Devon cow for instance, a breeder would look for a ring of yellow around the eye (a dark ring would signal a cross). By mid-century, color’s link to authenticity would become so strong that even a single discolored hair could cause consternation. “If any black hairs are found about the head or other parts,”

40. S. J. Jewett to Charles Mason, July 22, 1853, Patent Office Correspondence, 3: 895.

41. J. A. Dickson, quoted in “On Improved Short Horns,” *Farmers Cabinet* 1 (Aug. 1, 1836), 17.

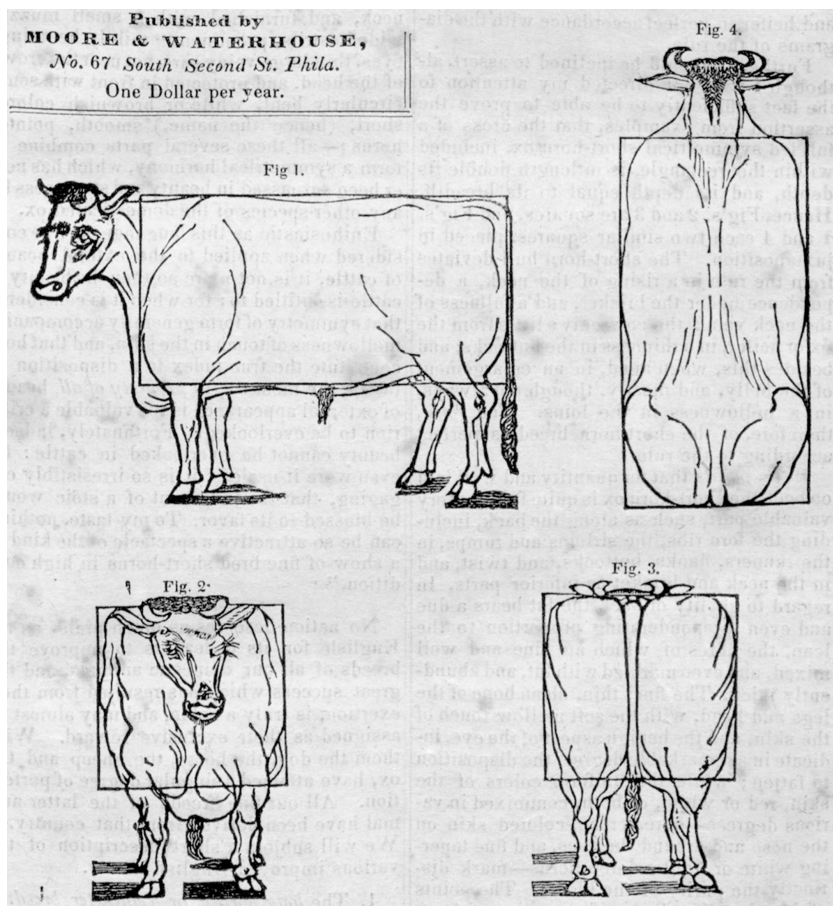


Figure 5: Illustration that accompanied Dickson's comments, "On Improved Short Horns," *Farmer's Cabinet*, Aug 1, 1836; 1, 2, 17. Courtesy of Archives and Special Collections, Dickinson College, Carlisle, PA.

wrote D. J. Browne in 1854, "especially the muzzle, it is an indication that the animal is spurious, or mixed." Note here that a body betraying traces of impure blood was not just "mixed" but "spurious," a term applied to banknotes written on banks that did not exist.⁴²

42. D. J. Browne, "Domesticated Animals," in *Report of the Commissioner of Patents for the Year 1854, Agriculture* (Washington, DC, 1855), 11; Stephen Mihm, *A Nation of Counterfeiters: Capitalists, Con Men, and the Making of the United States* (Cambridge, MA, 2007), 292.

This understanding of color was of relatively recent origin. In the 1820s and 1830s, using color as evidence of good breeding had become an important strategy for Shorthorn breeders anxious to paper over gaps in the records kept by earlier, less pedigree-focused breeders. As Shorthorns became dominant, other breeders had to follow suit. Buyers' expectations of uniformity forced Hereford breeders, who had focused on form rather than color and whose animals were born grey or mottled as well as white-faced and red-bodied, to kill off the grey and mottled bloodlines, and to produce the sea of identical white faces still visible today on beef ranches around the world.⁴³

As improved herds expanded and particular bloodlines within them became the objects of speculation, color strategies made it possible to mobilize old portraits in new ways. This process was most in evidence during the 1840s and 1850s in the skyrocketing value of animals from fashionable "tribes"—sub-breeds defined by lines of matrilineal descent from a particular cow. When the Duchess tribe first reached public notice in 1839 the founding cow, original Duchess, was dead. However, her portrait, preserved in Coates's *Herd Book*, displayed characteristic markings—"the white patch on the flanks and crop, the star on the forehead, and the gay little beauty spot just above the muzzle"—that Duchess tribe enthusiasts were delighted to point to in her descendants, in particular in the bull "Duke of Northumberland," by then a celebrity animal.⁴⁴

Where points of color promised that an animal's blood was authentic and could be reliably copied, other points demonstrated the animal's ability to produce valuable matter: its "thriftness." Thriftness was partially exhibited in what the American breeder Ambrose Stevens called the "consumable excellencies": the concentration of meat in cuts made valuable by urban markets. These were communicated to consumers and breeders through "butchery diagrams"—line drawings of animals segmented into cuts of meat—that began to appear in agricultural texts and cookbooks in the late eighteenth and early nineteenth centuries.

Butchers and cattle judges did not always agree—the same article describing the cattle trade of New York complained of "the ridiculous practice of offering premiums for excessive obesity, that children and

43. William Sotham, "A History of The Herefords in America," in T. L. Miller, *History of Hereford Cattle, Proven Conclusively the Oldest of Improved Breeds* (Chillicothe, MO, 1902), 365.

44. "Foreign Agriculture: The Herds of Great Britain—Mr. Bolden's Herd," *Michigan Farmer* 2 (June 2, 1860), 172.

groundlings may open their eyes with wonder, exclaiming, ‘*Oh! What a monstrous fat beast!*’” adding, “Monsters may they well be called, but *do they pay?*” Moreover, cuts varied internationally and regionally: Even wealthy Americans preferred smaller roasts to the unmanageable 100-pound “baron of beef” roast popular among the richest in Britain, and the “porterhouse steak” was a New York invention that made elite cuts available to working men.⁴⁵

However, British and American judges and butchers followed a common overall pattern, looking for fullness in the tender, little-worked muscles of the back and “fineness” in the shanks, organs, and the tough meat of the flanks and belly. Breeders looked for slim bones in the legs, not too long, a sign that the animal produced flesh instead of bone. Horns were to be slender, faces small and narrow (also supporting ease of birth), ears translucent. Square chests were supposed to indicate large lung capacity, a tricky point for Shorthorns, which suffered from poor lungs. Straight backs demonstrated to the educated eye that all of this delicacy of bone hadn’t gone too far, so that the animal didn’t collapse under its own weight.⁴⁶

Since the whole system depended on the use of external signs to determine internal processes, it’s not surprising that breeders and cattle judges describing the faces of cattle borrowed the language of physiognomy. Works of physiognomy sought dispositions to virtue in the human face and form; cattle judges attempted likewise to discern the “disposition to fatten” or the “disposition to kindly feeding,” placing great weight on the expression of the eye. “A rolling eye, showing much white, is

45. “The Cattle Trade of New York,” *The Plough, the Loom, and the Anvil* 1 (July 1848), 38.

46. Ambrose Stevens quoted in Allen, *American Herd Book*, 1: 29. Overfeeding was a serious problem in British animal showing, as indicated by a Smithfield Cattle show rule in the mid-1850s against cattle and pigs that were too fat to stand; the rule was quickly overturned after popular outcry. Moncrieff et al., *Animal Portraits*, 105. Butchery diagrams first appeared in Arthur Young’s *Annals of Agriculture and Other Useful Arts* (the same author and periodical that made Bakewell famous) in 1792 and crossed the Atlantic in Maria Rundell’s *New System of Domestic Cookery*, published in London in 1806 and in the U.S. a year later. Teagan Schweitzer, “The Language of Butchery Diagrams,” in *Food and Language: Proceedings of the Oxford Symposium on Food and Cooking 2009*, ed. Richard Hosking (Oxford, UK, 2009), 312–13; Horowitz, *Putting Meat on the American Table*, 19–21; Thomas F. DeVoe, *The Market Assistant* (New York, 1867), 34–59.

expressive of a restless, capricious disposition, which is incompatible with quiet feeding,” wrote James Dickson in a much-quoted article. By contrast, “A calm complacent expression of eye and face is strongly indicative of a sweet and patient disposition.” The head and neck similarly showed the “controlling expression of character.” Where “consumable excellencies” might be the result of wasteful “stuffing” (overfeeding right before a competition) the bones of the face told the truth about blood.⁴⁷

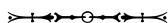
Teaching to see points was also teaching to breed. Breeders choosing animals to found a herd saw points not only as fixed features of particular animals but also as forming future animals in new combinations—the blood responsible for the good eye and square frame of one could be mingled with the slender legs of another to form a more perfect descendant. Skilled vision allowed both the selection of promising founding stock and the stabilization of their good qualities in their offspring. By killing or gelding calves with infelicitous points, breeders could ensure that only the perfected bodies remained. Drawing on breeder knowledge for the *Origin*, Charles Darwin would write in 1859, “Not one man in a thousand has accuracy of eye and judgment sufficient to become an eminent breeder.”⁴⁸

As certain ideal forms, particularly symmetry and fineness, became accepted, breeders increasingly accused cattle painters of faking them. This was certainly the case of the Durham artist J. R. Page, who produced one of Grace’s portraits. Years after Page’s death, the embittered “prince of Herefords,” William Sotham, still maintained that Page’s “pencil and ruler could draw straight lines out of an original crookedness,” that “He had a faultless *art* of making crooked side-lines straight,” and “could make high hips low, coarse bone fine, smoothen rough shoulders,” and “transfer thin necks into prominent neck veins.” “Sweet heads,” wrote Sotham, were “a specialty with [Page,] as he invariably carries that pattern in his eye, and his brain was always addled with it.” Such accusations were common—like other forms of commercial representation, cattle portraiture lent itself to exaggeration or outright lies. But it was the development of a language of cattle aesthetics that made it

47. James Dickson, “On the Points by Which Live Stock Are Judged,” in *The Farmer’s Register* 2 (Dec. 1834), 446–49; Allen, *American Herd Book*, 1: 28.

48. Charles Darwin, *On the Origin of Species by Means of Natural Selection*, 3rd ed. (London, 1861), 33.

possible to lie with a cattle portrait—only trained eyes could be allured by straight lines and “sweet heads.”⁴⁹



It is easy to see the rise of brain-addling mental patterns as the establishment of uniformity. Certainly to modern eyes the images look similar; breeders strained to make sure that the bodies pictured did so too. However, thousands of pages went into the discussion of points precisely because there was no “standard taste.” Every breeder valued a slightly different assemblage of points; indeed, it was in these differences that breeder style manifested itself. Parsing out variations in taste was a major task for breeding literature—each time new breeders received mention, their opinion of points was minutely detailed. Admiration for particular points was often associated with allegiance to a particular breed. “The man accustomed to look upon the broad back, massive frame, and square build of the lordly Durham breed,” wrote a correspondent to the *Michigan Farmer*, “is unwilling to consider that the well knit, active and lighter body which the Devons present for his approval, is entitled to much favor.” Devon enthusiast Edgar Dibble, writing to the New York State Agricultural Society complained less tactfully about the “grisley [sic] gray of the heavy, clumsy, coarse meated, big jointed, raw boned Durham.”⁵⁰

Differences in taste became conflicts in the judging pens at the agricultural fairs—particularly since the frequency with which judges admired stock that was related to or actually their own did not escape notice. Attempting to cast differences of opinion as failures of education, rather than as conflicts of interest, some breeders called for a general standard. “How many of those persons generally selected as Judges of stock, know what points are necessary to constitute a perfect animal, or one that approaches nearest?” inquired Caleb Bement in the *American Agriculturist* with perhaps slightly disingenuous modesty. “I must confess my own ignorance, and seek for information.”⁵¹

49. Sotham, “History of the Herefords,” 185.

50. “Points of Cattle,” *Michigan Farmer* 5 (July 1853), 246; Edgar Dibble, “Genesee,” *Transactions of the New York State Agricultural Society* 6 (1846), 552–53.

51. C. N. Bement, “Standard of Character for Prize Cattle,” *American Agriculturist* 2 (May 1843), 55; Simon Baatz, “Venerate the Plough”: *A History of the Philadelphia Society for Promoting Agriculture, 1785–1985* (Philadelphia, 1985),

Since any statement of points innately valued some bloodlines over others, attempts to seek a standard system were perilous. When amateur cattle painter and president of the New York State Agricultural Society Francis Rotch established a list of points to be used at Society fairs, William Sotham launched an attack on Rotch's taste and motives in multiple journals. "There can be no better evidence of a *low bred* animal than *projecting shoulder points*," he wrote scathingly, "they are always connected with thick, coarse buttocks supported by a large-boned carcass." Color criteria were, according to Sotham, fundamentally corrupt. The orange ring required around the eye of a Devon, he argued, was a simple effort to exclude otherwise immaculate bloodlines. Of course, Sotham's own motives were not unassailable; in the *Farmer's Cabinet*, John Westlake attributed Sotham's "liberality" in the matter of color to a well-known "black spot in the off side of Matchless," a long-dead British Hereford, related to Sotham's own stock.⁵²

Even as breeders came to see themselves as possessing not breeds but bloodlines, the finer categories of breeding—the definitions of value on which reputations and profits were based—remained fragmented. But points were not the only concept kept blurry by the inherent competition of the breeding community. More fundamentally, portraits, bloodlines, and animal descriptions recorded remarkable bodily changes and continuities—shifts in size and color on the one hand, and lineaments and patches of color traceable across generations on the other. As this record grew deeper, radically different interpretations of the meaning of these changes emerged.

In one storyline, hearkening back to named breeders like Bakewell and the Collings, the new cattle were human creations, the products of a virtuosic mind and eye, which could build "improved breeds" out of whatever lay to hand. This vision remained powerful among some breeders into the nineteenth century; the new Leicester Longhorn, the American breeder Henry S. Randall wrote in 1840, had been "spoke into

42–46; Ariel Ron, "Developing the Country: 'Scientific Agriculture' and the Roots of the Republican Party," PhD diss., University of California, Berkeley, 2012, 35–36.

52. "What Is Perfection in Cattle?" *The Western Journal and Civilian* 10 (Sept. 1853), 399; William Sotham, *Ohio Cultivator* (1845–1866) 9 (July 1, 1853), 197; John Westlake, "Portraits (and Puffs) of Animals," *Kentucky Farmer* (Apr. 3, 1841), 221.

existence as it were, by the commanding genius of Bakewell.” In this mode, breeders were creative—their talent and taste could make new and better bodies. This idea extended to broader anatomical circles, in particular to phrenological print (another place where the external judgment of bodies was a paramount skill). In 1858, an article in the *Phrenological Journal* arguing for the possibilities of manipulated inheritance demanded rhetorically, “Do we not all know how successful our cattle-breeders have been in directing the fat to those parts of the organism where gourmandize [sic] desires it? Have not sheep become moving cylinders of fat and wool, merely because fat and wool were needed?” This image of breeder power, strong on both sides of the Atlantic, would not only undergird phrenological marriage advice literature but also make it possible for Darwin to describe “natural selection” in terms of the known creative capabilities of human artificial selection.⁵³

A contrasting narrative, which had grown stronger with the rise of herd books, and with the interest in particular “tribes,” surfaced in the Patent Office Letters. Randall’s fellow Shorthorn enthusiast J. Delafield wrote, “The British breeds are almost as various as the districts where bred, and extensively intermingled; they have however been retained pure in their districts, on the estates of wealthy proprietors.” Seemingly a return to older geographic notions of breed, this statement was in fact a radical transformation. Cattle breeds here were not changing with a changing landscape but fixed types, adapted to particular places. In the

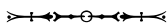
53. “What We Inherit: Animal Resemblances Are Transmitted,” *American Phrenological Journal* (1838–1869) 28 (July 1858), 6; Darwin, *On the Origin of Species*, 21–44. For breeding influenced marriage advice, see for example, Alexander Walker, *Intermarriage* (New York, 1839); Orson Fowler, *Love and Parentage* (New York, 1844). Though modern scientists label phrenology a “pseudoscience,” historians of popular science see phrenology as one of the most influential forms of anatomical knowledge in the United States and Great Britain during the early nineteenth century, made so by an extensive network of lecturers and printing houses. See Carla Bittel, “Woman, Know Thyself: Producing and Using Phrenological Knowledge in 19th Century America,” *Centaurs* 55 (May 2013), 104–30; J. van Wyhe, “The Diffusion of Phrenology through Public Lecturing,” in *Science in the Marketplace: Nineteenth-century Sites and Experiences*, ed. A. Fyfe and B. Lightman (Chicago, 2007), 60–96. See also Roger Cooter, *The Cultural Meaning of Popular Science: Phrenology and the Organization of Consent in Nineteenth-century Britain* (Cambridge, UK, 1984); Madeleine B. Stern, *Heads & Headlines: The Phrenological Fowlers* (Norman, OK, 1971).

Patent Office *Yearbook* of 1854, D. J. Browne elaborated on this idea, deducing from “the sacred historian” an Eden populated by original breeds: “in the highest degree of perfection as to quality.” These divine breeds, he held, had been decimated by the Deluge and polluted by generations of mingling blood. To Browne, the job of the breeder was to perceive “how many races, or breeds, of cattle there are . . . as it might afford means for tracing them back to their original purity” thereby laying “a surer foundation for improvement.” Here, breeders produced perfection not through creative taste but by perceiving and restoring an original purity. It seems likely that this kind of argument reassured polygenists of the American School of Ethnology, who found that the increasing differentiation and improvement of animal breeds threatened claims that different races belonged to separately created species.⁵⁴

“Purity” and “improvement” represented two fundamentally different understandings of the same set of cattle bodies. Allegiance to these understandings followed possession of animals with particular bloodlines. Adherents to the original storyline tended to see bloodline mixing as crucial to the breeder’s task. Shorthorn breeders in this group tended to see the Shorthorn as a cross of British and Dutch stock, and they tended to possess the descendants of an animal named “Alloy,” a non-Shorthorn that the Collings brought in to “correct” some defects of the original herd. For them “purity” was a hard-won uniformity that could be selected from any various population. Efforts to start new breeds in the nineteenth century, particularly the effort to create the “Creampot” breed in Massachusetts from an imported bull and a native, yet “excellent cow,” depended on this storyline. By contrast, Duchess Tribe speculators, attempting to re-create an animal famous before the introduction of Alloy, tended to argue that crosses were innately disruptive, and to see themselves as reaching back to an original ideal rather than forward to a new form. As the community of breeders grew more elaborate, what we might call the historiography of blood diverged in ways that had real meaning for the ways that breeders theorized bodily difference and the capacity of bodies for change.⁵⁵

54. D. J. Browne, “Domesticated Animals,” in *Report of the Commissioner of Patents for the Year 1854, Agriculture* (Washington, DC, 1855), 4–6. For a defense of the idea that breeds of domesticated animals were actually separately created species, see for example, Samuel George Morton, *Hybridity in Animals and Plants* (New Haven, CT, 1847).

55. “Cream-Pot Cattle, and Ten Hills Farm,” *Farmer’s Register; A Monthly Publication* 9 (Sept. 30, 1840), 562.



Grace's portrait in the *American Herd Book* came with a short biography written by Lewis Falley Allen. In it, Allen gives us a detailed account of a highly commodified body, dwelling on the production of valuable flesh, milk, and offspring. He describes Grace's first sexual encounter; her first calf, a female, born "unfortunately" after a bull broke into her paddock when she was only nine months old. He tells us what Grace ate "in the winter of 1849 and 1850 . . . about four quarts a day, of ground corn, oats, and bran," how much milk she gave at the height of her powers, that she was born on "a cold night," January 24, 1841, in Black Rock, New York, and that she was the first calf of her mother, Daisy, whose parentage we know back eight generations—more if we refer to previous volumes of the herd book. From Allen, we also learn about Grace's body in death. Her "shrinkage," that is her bones, "heart, liver, tongue and tripe," comprised an astonishingly small 16 percent of her 1,795 pounds, leaving mostly "lean . . . beautifully marbled" meat, and although she was thought too old to reproduce, a sixty-pound, six-month fetus was cut from her carcass.

Allen did not think of these details as grisly, intrusive, or sexually shocking, but instead as conventionally praiseworthy. In this he was not alone. Animal manipulation, slaughter, and sexual control were features of everyday life for most nineteenth-century Americans, meaning that the most intimate bodily structures and functions could be made matters of open discussion and debate. What separated Grace from "unimproved" cattle was the efforts made by her breeders to render her celebrity permanent. Thanks to the pencil of J. R. Page, 150 years after Grace's death, we still have two pictured claims about the look in her eye and an official figure for the weight of her skin.⁵⁶

The gory intimacy of farm life combined with the obsessive promotional documentation of improvement to establish a new realm of attention to bodies in the United States as well as Britain. The promise that any one animal would "stamp" its offspring with its good qualities required a deep evidentiary base of names, records of births and matings, breeders' names, sale records, and, of course, portraits. In this crowd of ancestral images and texts, more than in any living herd, hereditary transmission and bodily flexibility were displayed, sold, and used.

56. Allen, *American Herd Book*, 4: xix.

This weight of documentation creates at first an impression of order. However, the seeming uniformity of cattle bodies masked competing accounts of animal beauty and bodily change that were kept in tension by the markets that formed around bloodlines. Certainly the structure of the trans-Atlantic market in improved breeds promoted a certain amount of agreement among breeders. In displaying and marketing imported animals and their descendants, breeders necessarily supported the idea that bloodlines were purchasable; that is, that bodily templates could be reproduced in new climates without deterioration. However, if the trans-Atlantic trade in animals supported theories of inherited blood, other commercial structures increasingly promoted competing ideas of perfection. In struggling for bodily standards, loose confederations of breeders promoted forms of taste that supported their own bloodlines and points that they had accentuated through their own breeding practices. What seem like identical images of cattle bodies certainly share in “consumable excellencies”; in their fatness and their tiny legs we can see ideas of taste that stretch back to Bakewell’s hogshead-shaped Longhorns. However, their other points were more easily contested. Whether breeders saw beautifully broad buttocks or “pumpkin rumps” depended on their allegiances. Whether they saw color as an infallible sign of purity depended on whether their bull’s grandsire had a suspicious dark spot on his flank. More profoundly, breeders debated the meaning of the changes they produced and reproduced. Breeders whose animals could be traced back to a crossed animal (or who had a stray black hair) might believe in the power of virtuoso breeders to create bodies that improved upon their ancestors. Those whose bloodlines didn’t record crosses might subscribe to notions of an original, perhaps biblical, perfection that could be recaptured by selective practices. In such conflicting accounts the meaning of the word “improved” oscillated between “increasingly new” and “increasingly old.”⁵⁷

57. This applied also to herd books themselves. Allen’s efforts to define the shorthorn herd would eventually become so unpopular that in the 1870s separate groups of Kentucky and Ohio breeders would establish rival publications. Despite his detractors, it was through the reputation created by such gambits that Allen himself entered the pantheon of portraits—in 1903 his portrait hung along with that of Bakewell, the Colling brothers, and the Durham Ox, in the rooms of the Saddle and Sirloin Club at the Union Stock Yards of Chicago. It is no longer there, having been destroyed by fire in 1934. “A Recorder of Shorthorn Relations,” *A*

If commercial imperatives stabilized the idea of heritable qualities carried in the blood, commercial rivalries and bloodline allegiances also meant that these debates could not be fully resolved. Indeed it was this rivalry that spawned this great assemblage of commercial histories. The expanding body of portraits and pedigrees could be used to argue for the value of hundreds of bloodlines, hundreds of breeders, and hundreds of ancestral animals, supporting the claims to good breeding of thousands of living animals. Since these negotiations determined which animals reproduced and which were eliminated, this was more than simply a rhetorical change. New tribes and breeds expanded by developing stories as successful as that of the Collings, and by retrospectively crowning ancestors to rival Hubback, Duchess, and the Durham Ox. As their reputations rose, particular dead animals became more and more literally the ancestors of the surviving breed as a whole, at least until their story was replaced by a better one and a new ancestor gained ascendancy.

That this strategy of bloodline promotion continued into the twentieth century is clear from another portrait, originally in oils and now readily available online, though hard to reproduce here. In it, the cow Silver, who died in Britain in the 1740s, stares conventionally to the right, displaying, as Grace does, her good points. Her form does not resemble modern cattle much; her horns point upwards where her descendants' horns turn down or have been eliminated. Her most important feature, however, is her white head, now mirrored on the millions of living registered Herefords who are all her direct descendants. It was to establish a connection with Silver that breeders stabilized these white heads in the nineteenth century, killing calves who resembled her grey and mottled daughters. It was to confirm this connection again that the portrait was painted in 1953, commissioned by the American Hereford Association, using a color palette "typical of early English Prints," turning a cow who died decades before the rise of cattle portraiture into a worthy foremother.⁵⁸

Decades of competing portraits and stories ultimately shaped millions of actual cattle bodies; they also provided a highly public demonstration

Biographical Catalogue of the Portrait Gallery of the Saddle and Sirloin Club (Chicago, 1920), 251.

58. American Hereford Association, http://www.hereford.org/static/files/0812_WhatsNew.pdf. Accessed Jan. 27, 2013.

of bodily manipulation and flexibility during a period when categories of human race and gender were under construction and when many humans were being publicly exhibited, judged, sold, and exploited. In writing about this period we often note the ways that nineteenth-century ideas and practices “treated humans as animals.” This article cannot address the full ramifications of that idea. However, it seems worth noting that words like “animal,” and indeed, “cattle” were also categories under construction. Looking at improved cattle, built around elite social categories like inheritance, blood, and pedigree, we can see that the relationship between ideas about animal and human ran more than one way. Perhaps more importantly, the multiplicity of breeders’ ideas about bodily change should keep us from expecting any kind of simple transfer of ideas from cattle bodies to human bodies. In fact, the bodies of improved cattle provided a repertoire of possible interpretations that supported and disturbed a wide variety of bodily theories. Cattle could serve as arguments for guarding “purity” of blood and “good stock” or as arguments for the possibility of progressive human improvement through phrenologically informed marriage. Their great physical divergence challenged polygenist theories of “scientific racism,” even while the practices used to create them informed and were informed by theories of racial hierarchy. Years before Darwin’s *Origin of Species* described the evolution of wild species, the shifting bodies of these domestic animals destabilized rather than simply guiding understandings of the human form.

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