

Dolly Mixtures: The Remaking of Genealogy. Sarah Franklin. Durham, NC: Duke University Press, 2007. x+ 254 pp., notes, bibliography, index.

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In 1997, Scotland’s Roslin Institute created the lamb clone Dolly. In *Dolly Mixtures*, Sarah Franklin shows that far from being a visitor from a science-fiction future, Dolly arrived from the recombinant histories of British agriculture and reproductive biomedicine. Dolly was, above all, a mixture—of traditional field techniques and lab techniques long in the making and of old and new modes of generating value from animals. It was in embodying such mixtures that Dolly’s body became what Franklin describes as a frontier—a zone where horizons might be created, where futures might be realized and histories mythologized.

Dolly Mixtures can be imagined as an extended entry on sheep for a contemporary bestiary—one of those treatises, popular in the Middle Ages, describing animals in physical as well as mythic and moral terms. If the *Aberdeen Bestiary*, composed around 1200, said the sheep was “a gentle animal, its body clad in wool, harmless, placid by nature, [which] gets its name {ovis} from *oblatio*, an offering, because men of old offered as a sacrifice not bulls but sheep” (Folio 20v). *Dolly Mixtures*—mobilizing history, cultural studies, and Franklin’s ethnographic roving into laboratories, sheep fields, and tourist attractions—maps a turn-of-the-millennium sheepscape in which animal nature itself is no longer at all placid, in which ovine fortunes offer up transmutations in the very nature of biological nature.

The book is organized into seven chapters—“Origins,” “Sex,” “Capital,” “Nation,” “Colony,” “Death,” and “Breed”—that push readers to reconsider the meaning of each title word. In “Sex,” Franklin explains that Dolly was not, in the colloquial sense, a clone—a copy, a duplicate—but, rather, one end result of somatic cell nuclear transfer, in which nuclear DNA from one ewe cell was inserted into the denucleated cell of another—with this combination then cultured into sheep embryos (much as bacterial colonies are grown) to be placed into still other ewes for gestation. Franklin names this process a “metamix of sex, in which the reproductive possibilities of plants, animals and microorganisms are conjoined with biotechnological expertise” (p. 22). This “remixing of sex,” of asexual replication with sexual recombination, ushers us into the realm of what Franklin calls the “conditional biological.” The facts of life become increasingly artifactual—although the anthropological moral is of course that these facts were never as foundational as we thought: “Dolly is syntactically noncompliant with the normative arboreal grammars of reproduction and descent; her queer genealogy haunts the very basis of the formal biological categories that once affirmed the stability of a known sexual and reproductive order” (p. 28). Parents multiply. Time and space reshuffle. Franklin suggests that Dolly be understood less through a stable past or predictable future than through her “genealogical orientation,” which way she is made to point. Scholars of kinship will recognize this as a call to think of biogenetics as no longer traveling one way in space and time. Family trees after Darwin grew upward into the future; now, after Dolly, they go sideways, plural, fractal, recursive.

“Capital” builds on Franklin’s theorizations of “biocapital,” which she defined with Margaret Lock in 2003 as wealth depending on “mobilizing the primary reproductive agency of specific body parts, particularly cells, in a manner not dissimilar to that by which, as Marx

described it, soil plays the ‘principal’ role in agriculture” (p. 8). In revisiting questions of biological value through a history sheep breeding, however, Franklin is able to complicate the capitalocentrism of much work on biotechnology. The *stock* in livestock, Franklin shows, has itself a blended etymological lineage—referring to a foundation, a store, a race, a fund, and a principal—that “can be read as a historical narrative combining the emergence of distinctive forms of genealogy, property, and economy” (p. 53), not all of which reduce to the fetish forms of commodity capitalism. Viewing stem cells through the lens of sheep breeding, Franklin concludes that “stem cells, then, like sheep, provide powerful models of the ways in which capital in the older sense of stock derives out of a combination of genealogy, property and instrumentality” (p. 57).

In “Nation,” sheep point to Britain’s rural heritage and to the politics of agricultural transformation. Franklin takes readers back to the enclosure of the British countryside, which moved Scottish Highlander peasants off land to make way for sheep breeding for wool and profit. “Colony” travels to the southern hemisphere, where we learn that “Australian sheep were used not only to displace indigenous people, but to ensure the nonreproducibility of the subsistence ecology supporting the Aboriginal way of life” (p. 122). Franklin repurposes Turner’s frontier thesis—created to account for American customs of self-reinvention and Westward expansion—to understand the national mythos of Australia. It is here that Franklin theorizes the frontier as a site of “generative mixtures” (p. 132), arguing that “the idea of the frontier is always also implicated genealogically, for which *genealogical* describes the power to define and shape origins, or to organize generativity and vitality” (p. 134). The movement of sheep across landscapes and the movement of genes across cells become kindred processes of creating frontiers.

In “Death,” the 2001 foot and mouth epizootic in the United Kingdom that led to the culling of millions of animals is described to reveal how densely economic utility and ovine viability are entwined. The final chapter, “Breeds,” asks how Dolly may remake the biology we imagine makes us kin to Dolly. Dolly, Franklin argues, may be the first human clone (p. 205), by which she means most obviously that humans created her, but less obviously that she and we are not so different in the “natures” we now embody.

Franklin does for the clone what Claude Lévi-Strauss in 1962 did for the totem. For Lévi-Strauss, totemism was an illusion; more fundamental was the way human social and cognitive activity struggled to define the relation between nature and culture. The selection of an animal to represent a clan should be seen as an emanation of that struggle, not an object in itself. Just so with clones for Franklin: clones are good to think with about novel mixtures of nature and culture. But more: clones like Dolly are good for reorienting our practices and imaginations about the nature of genealogy—in general, specifically, and transspecifically.

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